

**Factors influencing adoption of high risk sexual behaviour
by undergraduate students at a private tertiary institution
in Gauteng Province, South Africa, in the context of the
HIV/AIDS epidemic**

by
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DECLARATION

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ACRONYMS

AIDS	Acquired Immunodeficiency Syndrome
ART	Ante Retroviral Treatment
ARV	Antiretroviral Drug
FET	Further Education & Training
FGD	Focus Group Discussion
HEAIDS	Higher Education & Training AIDS and HIV programme
HEI	Higher Education Institution
HIV	Human Immunodeficiency Virus
PLHIV	People Living with HIV
PMTCT	Preventing Mother to Child Transmission
SA	South Africa
SRC	Student Representative Council
STI	Sexually Transmitted Infections
TUT	Tshwane University of Technology
UKZN	University of KwaZulu-Natal
UNISA	University of South Africa

ABSTRACT

While there has been several studies that have been conducted targeting university students at state owned universities in South Africa, specifically on the impact of HIV/AIDS epidemic, no extensive study was conducted to establish what informs adoption of high risk sexual behaviour among university students in the context of HIV, STI and unplanned pregnancy epidemics at any of the state owned South African universities, let alone private universities. In order to address this identified gap in the body of knowledge, a cross-sectional study underpinned by the 'social norms' theory was undertaken at a private university in the Gauteng Province, South Africa to establish why undergraduate students engage in high risk sexual behaviour that puts them at risk of contracting HIV, STIs and unplanned pregnancy. Quantitative data was collected from 342 students through a questionnaire and qualitative data was collected from 38 students through the focus group discussions. Findings revealed that early sexual debut, intergenerational sex, multiple and concurrent partners, unprotected sex, sex under the influence of alcohol and illegal drugs and transactional sex constitute high risk sexual behaviour. The study concluded that peer pressure, independence, financial needs, drug and alcohol abuse, fear of being an outcast, need to identify with modernity, lack of individual perception of risk, campus culture and sexual partner influence are the factors influencing the adoption of high risk sexual behaviour on campus. Based on the findings and conclusions, recommendations are provided for the development of an HIV prevention programme on campus that is aimed at mitigating the negative consequences of the HIV/AIDS, STIs and unplanned pregnancy epidemics.

OPSOMMING

Die literatuur toon aan dat daar alhoewel daar wel studies onderneem is ten einde die impak van die MIV epidemie onder studente aan openbare universiteite te bepaal onderneem is, daar nog steeds baie min kennis in hierdie verband bestaan. Die faktore wat 'n rol vervul in hoë-risiko seksuele gedrag onder studente aan hierdie universiteit is grootliks onbekend.

Ten einde hierdie gaping te probeer oorbrug is hierdie studie onderneem aan 'n privaat universiteit in Gauteng provinsie in Suid-Afrika. Die doel van die studie was om vas te stel wat voorgaande studente motiveer om hoë seksuele gedrag te beoefen, wetende dat hulle hulleself blootstel aan MIV-infeksie en onbeplande swangerskappe.

'n Steekproef van 342 student is in die studie gebruik en 'n vraelys is deur hulle voltooi. 'n Verdere 38 student het deelgeneem aan 'n fokusgroepbespreking.

Resultate toon aan dat studente dikwels meer as een seksuele maat het; dat seks beoefen word terwyl studente onder die invloed van alkohol is; dat seks dikwels onbeskermend plaasvind en dat alle hierdie faktore bydraend is tot hoë blootstelling aan MIV-infeksie. Die studie het verder gevind dat groepsdruk, finansiële probleme, dwelm- en alkoholmisbruik en groepsdruk verdere bydraende faktore tot hoë-risiko gedrag onder studente is.

Resultate van die studie is gebruik om aanbevelings te maak vir die ontwikkeling van 'n MIV-voorkomingsprogram wat daarop gerig is om die oordrag MIV en onbeplande swangerskappe aan die universiteit (wat in die studie ondersoek is) te bekamp.

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CHAPTER 1: BACKGROUND

1.1 Introduction

There is a general perception at a certain private higher education institution in Gauteng Province that undergraduate students on campus engage in high risk sexual behaviour that puts them at risk of contracting HIV, sexually transmitted infections (STIs) and un-intended pregnancies. Because of its high tuition fees, the institution generally attracts students from well to do backgrounds. The institution was established in 1989 and it is registered with the Department of Higher Education and accredited with the Council of Higher Education in South Africa. It draws its students from various countries in Africa.

The study is underpinned by the ‘social norms theory’ (Scholly, Katz & Gascoigne, 2005) and it uses the core elements of the theory to explain perceptions and sexual behaviours of undergraduate students at the institution. At the core of the social norms theory (Boston University School of Public Health, 2013) is the notion of perceived norms versus actual norms, which in turn creates misperceptions. In other words, the theory is anchored on the power of the environment in which one lives and peer influences which usually create misperceptions that may promote risky behaviour as students try to conform to accepted norms and values when it comes to sexual practices. Similarly, the need to belong or conform with accepted values and norms when it comes to sexual practices on campus probably is the primary cause for students to engage in high risk sexual behaviour.

In addition, the theory also proposes that demystifying these misperceptions will result in a decrease in risky sexual behaviours (Scholly, et al., 2005). In other words, the power of the environment and peer influences can be used to promote behaviour change, as opposed to just the power of an individual to promote behaviour change. Boston University School of Public Health (2013) has noted one of the social norms theory’s limitations that is applicable to this study. The limitation is that participants can question and critique the validity of the misperception especially in the early stages of the explorative study. This could happen with the participants on campus. Notwithstanding the limitation of the theory cited above, the social norms theory can be effective in this study if employed correctly.

While the paper acknowledges the various studies that have been conducted targeting university undergraduate students in South Africa, specifically in the HIV/AIDS context or high risk sexual behaviours in general, it notes that no extensive study was conducted on what informs adoption of high risk sexual behaviour among undergraduates students in any of the South African universities, let alone private universities. While there has been studies carried out in state universities by HEAIDS, these studies have been on the impact of HIV/AIDS on universities, and not on factors informing adoption of high risk behaviour.

1.2 Research Problem

There is a general perception that students at the institution engage in high risk sexual behaviour that puts them at risk of contracting HIV, STIs and unplanned pregnancy. No studies have been conducted at the institution to investigate this phenomenon; as a result we do not know why students engage in high risk sexual behaviour. This study, therefore, seeks to ascertain the root causes of high risk sexual behaviour in the context of HIV, STIs and unplanned pregnancy epidemics.

1.3 Research Question

The specific research question for this exploratory study is: ‘Why do undergraduate students on campus engage in high risk sexual behaviour that puts them at risk of contracting HIV, Sexually Transmitted Infections (STIs) and unplanned pregnancy?’ The findings of the exploratory study will inform the design and development of intervention on campus aimed at mitigating the negative consequences of the above mentioned epidemics.

1.4 Aim and Objectives

The aim for this exploratory study is to establish why undergraduate students on campus engage in high risk sexual behaviour that puts them at risk of contracting HIV, STIs and unplanned pregnancies. The findings will in turn inform the design and implementation of an HIV intervention programme on the campus.

The study has got the following four objectives:

- To gather information about students' sexual knowledge, attitudes and practices.
- To identify students' understanding of what constitutes high risk sexual behaviour.
- To establish what knowledge informs their sexual choices.
- To provide guidelines for and recommendations for a future HIV programme at the institution.

1.5 Significance of the Study

Six sub-groups may benefit from this exploratory study, and these are: undergraduate students from campus (different cohorts), the institution's management, HIV/AIDS stakeholders at the institution, parents of undergraduate students, other universities in South Africa and across the globe, and policy making bodies like the Higher Education and Training AIDS and HIV Programme (HEAIDS). Students at the institution may benefit from this investigation because the findings will inform the HIV/AIDS intervention that will be designed for them and implemented on campus. The institution management may also benefit because they will be able to manage HIV, STIs and un-intended pregnancies on campus. They will be better equipped to deal with these specific issues, and this is a proactive approach. The HIV/AIDS stakeholders of the institution may also benefit from the research findings as they will be able to design and develop (in partnership with the management) an HIV intervention programme that addresses the root causes of high risk sexual behaviour.

Parents of the students may also benefit because their children will graduate and leave university better equipped with knowledge and skills on how to deal with HIV, STIs and un-intended pregnancies in their adult lives. Other universities in South Africa and across the globe may benefit if the intervention yields positive results and it can be scaled-up. Lastly, HEAIDS may benefit from the study as recommendations can inform policy changes or amendments when it comes to designing cutting edge HIV/AIDS strategies for South Africa's public higher education institutions and Further Education and Training Colleges (HEAIDS website).

1.6 Outline of Chapters

The thesis is divided into five chapters. Chapter 1 is the introductory chapter that defines the research problem, provides background to the study, and describes the research aim and objectives. In Chapter 2, a review of existing literature around the study topic is presented. The research design and methodology that was employed in the study is described in Chapter 3. In addition, details about the study target group, sampling method, data collection methods, how the data was analysed and presented and ethical considerations are also presented. Chapter 4 describes the major findings of the study, followed by analysis and interpretation of results. Lastly, the thesis ends with a summary of conclusions drawn from the findings, study limitations as well as recommendations for further research in Chapter 5.

CHAPTER 2: LITERATURE REVIEW

Adoption of high risk sexual behaviour among university students has been mentioned as a contributing factor to HIV infection, sexually transmitted infections (STIs) and unplanned pregnancy, yet studies on the ‘root causes’ of high risk sexual behaviour remain limited (HEAIDS Report, 2010). In a different article by Mutinta & Govender (2012), it is stated that it has since been established that there is a relationship between high risk sexual behaviour and HIV infection, STIs and unintended pregnancy in sub-Saharan Africa, but still the causes of high risk sexual behaviour have not been thoroughly investigated. As a result, there is limited information in documented literature on why university students engage in high risk sexual behaviour that puts them at risk of contracting HIV, STIs and unplanned pregnancies - at both state and private universities in South Africa.

There are fundamental differences in the circumstances of students from state universities and those from private universities. Students in state universities pay less tuition than those in private universities and there is a general notion that students at private universities come from well-to-do families as parents and guardians can afford to pay the high tuition fees and affluent lifestyle. The HEAIDS study (2010) that was conducted in 21 out of the 23 state universities in South Africa focused on the impact of the HIV/AIDS epidemic. The only study that focused on risky sexual behaviour at a state university in South Africa has been conducted at Mangosuthu University of Technology, and it targeted only female students; the causes of risky sexual behaviour have been limited to socio-economic factors (Hoque, 2011).

Specifically, no extensive research has been conducted on the ‘root causes’ of high risk sexual behaviour among students at the private universities in South Africa. This is why this study was conducted. As stated earlier, the research done by HEAIDS was on the impact of HIV/AIDS, not on factors informing adoption of high risk behaviour. The research question seeks to establish the ‘root causes’ of high risk sexual behaviour among undergraduate university students on campus. This paper makes reference to two specific studies that are closely linked to the research question, and these studies have been conducted in South Africa and Ethiopia, respectively. The first study was conducted at Mangosuthu University of Technology in KwaZulu-Natal Province, South Africa (Hoque, 2011).

Hoque (2011) argues that the study sought to establish why female students at Mangosuthu University of Technology engage in risky sexual activities. For the purposes of this particular study, the following sexual activities were classified as risky sexual behaviour: sex with no condom, sex at an early age, using drugs and consuming alcohol before engaging in sexual intercourse, multiple sexual partners, and transactional sex. Poverty and lack of information on the HIV/AIDS epidemic have been identified as factors influencing female students at Mangosuthu University of Technology to engage in risky sexual activities.

This paper acknowledges two similarities between the study by Hoque (2011) and the proposed research question: the knowledge gap associated with risk sexual behaviour, and that both studies target undergraduate students even though the study at Mangosuthu University of Technology specifically targeted female students only. While the findings of the research concluded that female undergraduate students at Mangosuthu University of Technology engage in risky sexual activities due to poverty and lack of information on HIV/AIDS epidemic, the same cannot be confirmed for undergraduate students on the private campus for a couple of reasons.

Firstly, the exploratory study at the institution targets both male and female undergraduate students and the gender differences need to be considered. Secondly, the study by Hoque at Mangosuthu University of Technology was conducted at a campus in Umlazi Township in Durban and the student population is mainly from historically disadvantaged communities; it is also a public institution. On the other hand, this is a private tertiary institution situated in the affluent suburb of Midrand, Johannesburg South Africa. Given the two different settings, the results from the Mangosuthu University of Technology cannot be generalised for this institution, even though socio-economic factors might be among the causes; hence the need for a specific investigation because currently we do not know why students at the institution engage in high risk sexual behaviour that puts them at risk of contracting HIV, STIs and at the risk of unplanned pregnancy.

The second study closely linked to the proposed research question was conducted in North East Ethiopia by Alamrew, Bedimo & Azage (2013). The purpose of the study was to assess risky sexual practices and associated factors for HIV/AIDS infection among private college students in Bahir Dar City. These private colleges are similar to Further Education & Training colleges (FETs) in South Africa.

According to Alamrew et al. (2013), the main factor why students from the private colleges engage in risky sexual activities was lack of students' residence facilities at colleges. As a result these students, most of them from rural areas, end up finding accommodation at rented houses with no parents or guardians supervising them. In addition, most of the rented houses are on the lower end of the market, close to areas of entertainment like taverns - which provide fertile ground for risky sexual activities.

Even though the exploratory study at the institution can adopt some of the methodology used in the study, the results cannot explain the unknown phenomena at the institution. Firstly, the institution is a private higher education institution, different from the private colleges in Ethiopia similar to FET colleges in SA. In fact, Alamrew et al. (2013) state there is no information on risky sexual behaviour among students from private higher education institutions in Ethiopia, and this gives this study an impetus.

Secondly, the private colleges in Ethiopia cater for students who could not make it to private universities, and are mainly from rural areas in the country. On the other hand, the institution used for this study is an affluent private university with students from various countries in Africa who pay high tuition fees. If students are not accommodated in university residence with a residence manager, they can afford to rent decent apartments without compromising their living conditions. It is also critical to note that the institution has state of the art student accommodation and, therefore, the finding about lack of university accommodation from the Ethiopia study cannot apply to the current study. Notwithstanding the earlier assertion that very little is known about the 'root causes' of high risk sexual behaviour by university students, as highlighted by the two studies in South Africa and Ethiopia, this paper goes further to discuss some of the studies that have been conducted on the relationship between risk sexual behaviour and HIV infection as well as individual perceptions of HIV infection risk.

The fact that students' life on campus is characterised by little financial resources for food, tuition fees, clothes, books and petty cash for other day-to-day needs promotes high risk sexual behaviour (Mulwo, 2009). In a different study conducted in 2009 by Lengwe at the three state universities in KwaZulu-Natal Province it was concluded that experimentation

with drugs and sex describes students' life on campus and, consequently, encourages them to adopt high risk sexual behaviour.

Interestingly, Eleazar (2009) in his study at three state universities in KwaZulu-Natal concludes that the home environment where parents or guardians do not enforce strict regulations when it comes to sexual behaviour resulted in students from these home environments adopting risky sexual behaviours. On the other hand, Leclerc-Madhala (2004) argues that the great desire by students to identify themselves with modernity encourages them to adopt risky sexual behaviours that expose them to HIV infection. Similarly, the HEAIDS report (2010) states that sexually risky behaviour prevalence in heterosexual relationships for university students at 21 public universities in South Africa is 68%, and the HIV prevalence is 4% (Mulwo, 2009). While this paper acknowledges all these findings from earlier studies conducted in different settings, it is yet to confirm the causes of high risk sexual behaviour at the institution, hence my research proposal.

A study that was conducted by Nkomazana & Maharaj (2014) at two universities in Zimbabwe (one public and one private) concluded that as long as university students do not perceive individual risk to HIV infection, they continue to expose themselves to risky sexual behaviour. The objective of the study was to ascertain students' perception of HIV infection risk. The names of the two universities are not published because of what was agreed in the ethical approval conditions. Nkomazana & Maharaj further state that the study was underpinned by the following behavioural theories: health belief model, the AIDS Risk Reduction Model and theory of reasoned action, as it sought to establish individual risk perception to HIV infection.

The logic behind this approach emanates from the point that knowledge on HIV infection is not enough, students need to internalise the information and recognise personal risk in order to take action and protect themselves from HIV infection. Since the purpose and theoretical basis of the study at Zimbabwean universities conducted by Nkomazana & Maharaj (2014) are different from the purpose and theoretical basis from the proposed research at the institution, it means that the study is worth pursuing. While the study at Zimbabwean universities focused on individual perception of HIV risk infection, the proposed study at the institution uses the social norms theory in an attempt to understand the 'root causes' of high risk sexual behaviour by students in order to design and develop an informed HIV intervention programme.

Another study that sought to establish the socio-environmental determinants of students' sexual risk behaviour and HIV prevention was conducted at the University of KwaZulu-Natal (UKZN), South Africa, by Mutinta & Govender (2012). The study was conducted at two of UKZN campuses and both male and female students were included. Ninety six in-depth interviews were conducted, together with four focus group discussions with equal representation of both male and female students. What is also critical to highlight is that the study was conducted after students had been exposed to an HIV prevention campaign message on both campuses, the 'Scrutinize Campaign' by John Hopkins University.

The recommendation from the study was to address the identified socio-environmental factors - such as educational background, beliefs around sexual matters, status in the society and the conditions at home that promote adoption of risky sexual practices - as one of the ways to prevent the spread of HIV infection on both campuses. While this paper acknowledges these findings which were specific to the objective of the study, the approach in the proposed study at the institution goes beyond socio-environmental determinants of risky sexual behaviour.

The study at the institution seeks to establish the 'root causes' of high risk sexual behaviour, comprehensively. Thus, the causes can either be lack of information on the HIV epidemic, socio-economic, environmental, political, lifestyle, pessimism, identity crisis, mass media, peer pressure, poverty, instant gratification, materialism and social phenomena. Again, this is yet to be confirmed through the actual study at the institution. One other fundamental difference between the UKZN study and the proposed study at the institution is that the UKZN study was conducted after students had been exposed to an HIV prevention campaign and at this stage it has not been established whether the institution has implemented an HIV programme on campus prior to the study and the study will confirm that.. As a result the purpose of this study is to establish the 'root causes' of high risk sexual behaviour so that the intended HIV intervention programme can address the root causes of high risk sexual behaviour.

Lastly, this paper makes reference to the study that was conducted by the Higher Education HIV and AIDS Programme (HEAIDS, 2010). The study was conducted by HEAIDS in 2010 at 21 public universities out of the 23 public universities in South Africa. The HEAIDS programme is managed by the Council of Higher Education in South Africa (HEAIDS website). The goal of the HEAIDS programme is to minimise the effects of the HIV/AIDS

epidemic at all government owned higher education institutions (HEI) and Further Education and Training centres (FETs), targeting all 400 campuses throughout the country.

The specific study in 2010 targeted only the higher education institutions, 21 out of the total 23. The University of South Africa (UNISA) and Tshwane University of Technology (TUT) were excluded from the study because UNISA offers distance education; and there was students' unrest at TUT. This was a comprehensive study to determine the impact of the HIV/AIDS epidemic in public universities in the country. The HIV/AIDS epidemic has been mainstreamed in South Africa's state tertiary institutions (HEIs and FETs) through the HEAIDS programme (HEAIDS Report, 2010). Based on the target and purpose of the study, I am still convinced that there is a knowledge gap when it comes to 'root causes' of high risk sexual behaviour at the institution, and the proposed study will close that gap.

Even though the higher education sector in South Africa had been slow to respond to the effects of the HIV/AIDS epidemic compared to other sectors such as health, it eventually responded (HEAIDS Report, 2010). However, the HEAIDS response is for the 23 state universities, and the 23 private universities are excluded. This means that they are still lagging behind as there is no dedicated HIV/AIDS programme like HEAIDS for private universities. Specifically, the institution, being a private university in South Africa, was not included in the HEAIDS study because the HEAIDS programme is meant for the 23 state universities; therefore the results cannot be applied to its context.

The institution, as a private institution, does not fall under the 23 public universities and therefore it cannot benefit from the various HEAIDS HIV initiatives - hence the need for this proposed study to inform an appropriate intervention. In addition, the purpose of the HEAIDS study is totally different from the purpose of the proposed study at the institution. Nonetheless, there are a lot of HIV/AIDS programme aspects that the institution can adopt from the HEAIDS programme as it develops its own HIV intervention programme, but the findings of this study will assist them to customise the intervention so that it addresses specific issues identified.

In a nutshell, this literature review has demonstrated that some research has been conducted at various universities and colleges in an attempt to understand the impact of the HIV/AIDS epidemic and mitigate against the adverse effects of the epidemic. Specifically, reference was made to the studies that have been conducted at various universities (both public and private)

around socio-environmental determinants of sexually risky behaviour, the relationship between sexually risky behaviour and HIV infection, STIs and unplanned pregnancy, individual perception of HIV infection and the impact of the HIV/AIDS epidemic at universities. However, there has not been a specific research that was conducted at a private university in South Africa using the ‘social norms theory’ to establish the ‘root causes’ of high risk sexual behaviour by undergraduate students.

CHAPTER 3: RESEARCH METHODOLOGY

3.1 Research Design and Methodology

Overall, the research methodology was a cross-sectional study, and descriptive. According to Creswell and Patton (as cited in Christensen et al., 2011) using only quantitative methods was not going to give the researcher a complete picture on the ‘root causes’ of high risk sexual behaviour by undergraduate students on campus enrolled for the 2015 academic year; therefore, the research methodology consisted of both quantitative and qualitative data collection instruments. In addition, the researcher used two methodologies in order to provide more perspectives on the research problem in question (Easterby-Smith, Thorpe & Lowe, 1991) and the same position was also recommended by Gable (1994). In essence, this was a cross-sectional study where data was collected from the institution research participants through questionnaires - which is a quantitative tool (see Appendix 1); and focus group discussions - which is a qualitative tool (see Appendix 2) - at the same time (Christensen et al., 2011).

As argued by Christensen et al. (2011), the questionnaire is a self-reported data collection tool and, therefore, the research participants at the institution filled out the questionnaires on their own, even though the researcher administered the questionnaires in person. The researcher printed hard copies for research participants to fill out. The questionnaire as a quantitative data collection tool in this instance measured research participants’ opinions and perceptions about sexual knowledge, attitudes and practices on campus, their understanding of what constitutes high risk sexual behaviour and, lastly, their perceptions on students’ sexual choices. In addition, the questionnaire also allowed research participants to provide non-personal self-reported demographic information.

The questionnaire design has both closed ended questions (where participants selected responses based on a Likert-type scale) and some open ended questions where they provided answers in their own words. This research took into account both the strengths and weaknesses of the questionnaire as a data collection method so that the study achieves its objectives. Some of the strengths of the questionnaire method that benefited the study include measurement of attitudes of high risk sexual behaviour and getting information about participants’ subjective perspectives and opinions. Using the questionnaire as an inexpensive

tool, the researcher managed to collect the exact information she was looking for from closed ended questions as well as more information from open ended questions.

The second methodology that was used in this study was focus group discussions. Focus group discussions were used to explore ideas further and to gain in-depth information about how students perceive adoption of high risk sexual behaviour on campus. In essence, this was a small interaction focusing on in-depth discussion among participants in each session. As with the questionnaires, the researcher also moderated the sessions. In line with the recommendations outlined by Christensen et al. (2011), the researcher had groups of between 6-12 participants per session. Given the sensitivity of the issues to be explored in the study, the groups were homogeneous based on gender, two female groups and two male groups. The sessions were scheduled for between 1-2 hours. There was no power relation between the researcher as the moderator and the research participants.

The researcher also capitalised on the strengths of focus group discussions, which included exploring ideas and concepts on high risk sexual behaviour, getting an insight on participants' internal thinking, and observing how participants react to each other. Conducting focus group discussions allowed the researcher to probe, and the methodology has got a quick turnaround time. In addition, the researcher had to tap into good facilitation and rapport building skills, and build in time to analyse the responses.

3.2 Target Group

The target group for this research study was undergraduate students at a private higher institution in Gauteng Province for the 2015 academic year; however, the study was restricted to participants aged 18 years and above. Participants were either in first year, second year, third year or fourth year - across all six faculties and twenty degree disciplines.

3.3 Sampling Method

The researcher obtained the research participants using the 'proportional stratified sampling' method. The total number of undergraduate students at the institution for the 2015 academic year is 3 000 across all six faculties and twenty degree disciplines. Basically, the researcher

needed to get a representative sample (a mirror image in all aspects) of the institution undergraduate students' intake for the 2015 academic year. The researcher used the year of study (first year up to fourth year) as the strata, and participants were then proportionally sampled from each year of study. The reason why the researcher selected the proportional stratified sampling was because since the focus group discussions were homogeneous groups based on gender, she wanted to have a number of male and female participants that was proportional to the number of male and female students in each year of study.

With regards to sample size calculation, the researcher used recommendations outlined in the sample size calculation table compiled by Krejcie and Morgan (1970). According to the table calculations, the researcher needed a sample size of 341 students because the total number of undergraduate students is 3 000 for the 2015 academic year at the institution. All the possible setbacks, such as no responses from some of the participants, have been considered in this calculation.

3.4 Data Collection

Quantitative data was collected through the questionnaire from the target group, using Likert-type scale response options in an attempt to measure knowledge, attitudes and perceptions on the root causes of high risk sexual behaviour. The researcher had planned to administer 341 questionnaires (representative sample) but she managed to administer 342 questionnaires, more than the target.

Qualitative data was collected through focus group discussions. Through focus group discussions, the researcher managed to explore ideas further and gained in-depth information about how students perceive adoption of high risk sexual behaviour on campus. However, the researcher managed to conduct four out of the six focus group discussions (two female sessions and two male sessions) as she could not get more volunteers for the two additional sessions.

3.5 Data Analysis

The data collected from the questionnaires and focus group discussions was captured in an excel spreadsheet and analysed using the SPSS version 23 and ATLAS.ti version 7.8, respectively. In addition, the following techniques were employed to analyse data (Field, 2009, Pallant, 2010 & Wolcott 1994):

Descriptive statistics was used to describe respondents' demographics and perceptions on what influences adoption of high risk sexual behaviour, accompanied by statistical data for the quantitative section.

Regression analysis was employed to test the composite variable on the 'root causes' of high risk sexual behaviour.

Thematic analysis was employed for the qualitative section of this study (Miles & Huberman, 1985).

3.6 Ethical Considerations

Before the research commenced, ethical approval was granted by the Stellenbosch University's Ethics Committee on the 31st of March 2015 (see Appendix 3). In addition, ethical permission for the study was also granted by the private higher education institution's Ethics Committee on the 28th of April 2015 (see Appendix 4).

The following principles were also strictly adhered to:

3.6.1 Informed Consent

Written consent was obtained from all participants who completed the questionnaire (see Appendix 5) and who attended the focus group discussions (see Appendix 6). Informed consent forms were prepared and printed and they explained the purpose of the study, participants' role in the study, and participants' choice to participate or not to participate.

3.6.2 Participation and Withdrawal

The study was restricted to participants aged 18 years and above. Therefore, there was no need to get informed consent from guardians. Eligible participants were given a choice whether to be in this study or not. Those who volunteered to participate in this study were made aware that they could withdraw at any time without consequences of any kind. Participants were also made aware that they could refuse to answer any questions that they did not want to answer and still remain in the study. In addition, the researcher explicitly made it clear to participants that they could be withdrawn from the research study if circumstances arose which warranted doing so.

3.6.3 Anonymity

Anonymity was observed throughout the process as no unique or personal identifier on participants was used. No names were collected from participants as they filled out the questionnaire or participated in focus group discussions that could link them to data collected.

3.6.4 Confidentiality

All information collected will remain confidential and will be disclosed only with the permission of participants or as required by law. Since the institution has a vested interest in the project, only research project results and not filed data from participants will be disseminated so that participants are protected.

3.6.5 Data Storage and Dissemination

Data collected from the research is being kept safe in a lockable cupboard in the study room of the researcher's house after being captured on her personal computer which is password locked. Since the institution has a vested interest in the project, only research project results and not filed data from participants will be disseminated so that participants are protected.

CHAPTER 4: RESULTS AND DISCUSSION

Data was collected from July 27 to August 07, 2015, with 342 participants completing a 46 item questionnaire. In addition, 21 females and 17 males participated in the focus group discussions and a focus group guide was used (see Appendix 2).

4.1 Socio-Demographic characteristics of the respondents

Descriptive analysis was performed to obtain frequency distribution of demographic variables which are age, gender, race, relationship status, religion, age at sexual debut, sexual partner age difference, sexual partner frequency in three months, condom use frequency, place of residence and alcohol use.

4.1.1 Age Distribution of the Respondents

There was a response rate of 100%. A total of 342 respondents completed the research questionnaire. Out of the 342 respondents, 152 (44%) were between the age of 18-20 years, 186 (54%) were between the age of 21-25 years and 4 (1%) were between the age of 26-30 years.

Table 4.1 Age range of respondents

Age	Frequency	Valid per cent	Cumulative per cent
18-20 years	152	44.4	44.4
21-25 years	186	54.4	98.8
26-30 years	4	1.2	100.0
TOTAL	342	100.0	

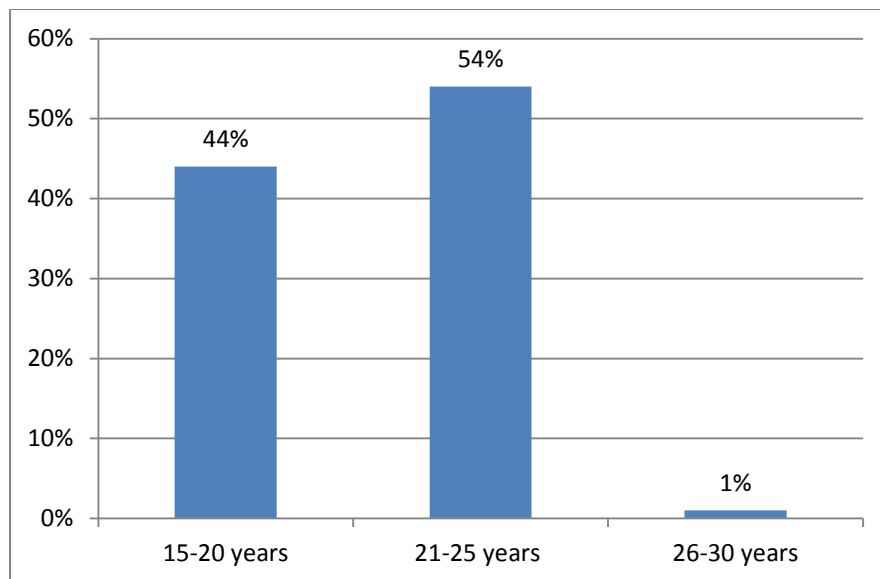


Figure 4.1: Age range of respondents

4.1.2 Respondents' Gender

Of the 342 respondents 122 (36%) were males and 220 (64%) were female.

Table 4.2 Gender distribution of respondents

Gender	Frequency	Valid per cent	Cumulative per cent
Male	122	35.7	35.7
Female	220	64.3	100.0
TOTAL	342	100.0	

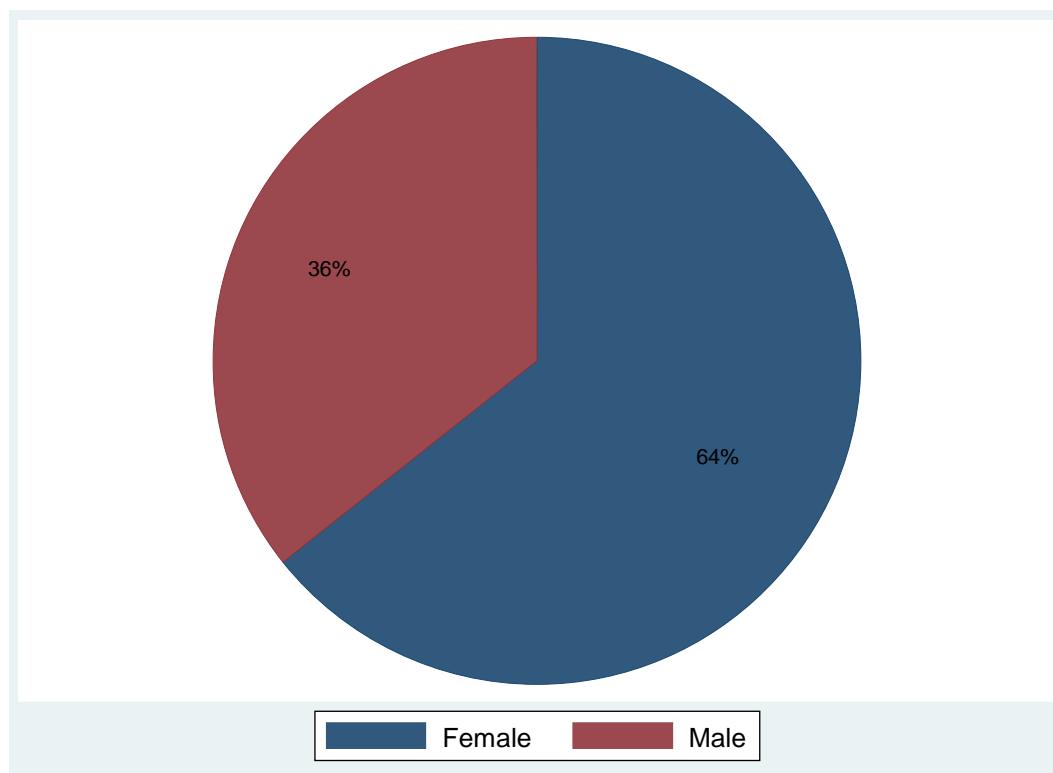


Figure 4.2 Gender distribution of respondents

4.1.3 Respondents' Race

Of the 342 respondents, 6 (2%) were white, 15 (4%) were Indian, 9 (3%) were coloured, 311 (91%) were black and 1 (.3%) were other.

Table 4.3 Race distribution of respondents

Race	Frequency	Valid per cent	Cumulative per cent
White	6	1.8	1.8
Indian	15	4.4	6.2
Coloured	9	2.6	8.8
Black	311	90.9	99.7
Other	1	.3%	100.0
TOTAL	342	100.0	

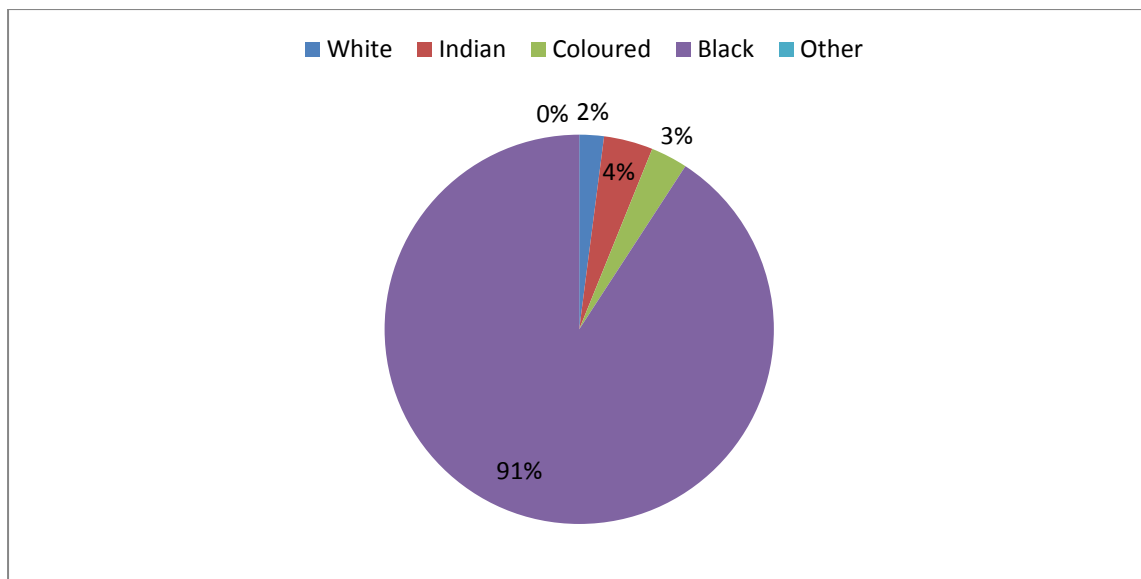


Figure 4.3 Race distribution of respondents

4.1.4 Relationship Status of the Respondents

Of the 342 respondents, 273 (80%) were single, 8 (2%) were married, 1 (.3%) was widowed and 60 (18%) were other.

Table 4.4 Relationship status of respondents

Relationship status	Frequency	Valid per cent	Cumulative per cent
Single	273	79.8	79.8
Married	8	2.3	82.1
Widowed	1	.3	82.4
Other	60	17.5	100.0
TOTAL	342	100.0	

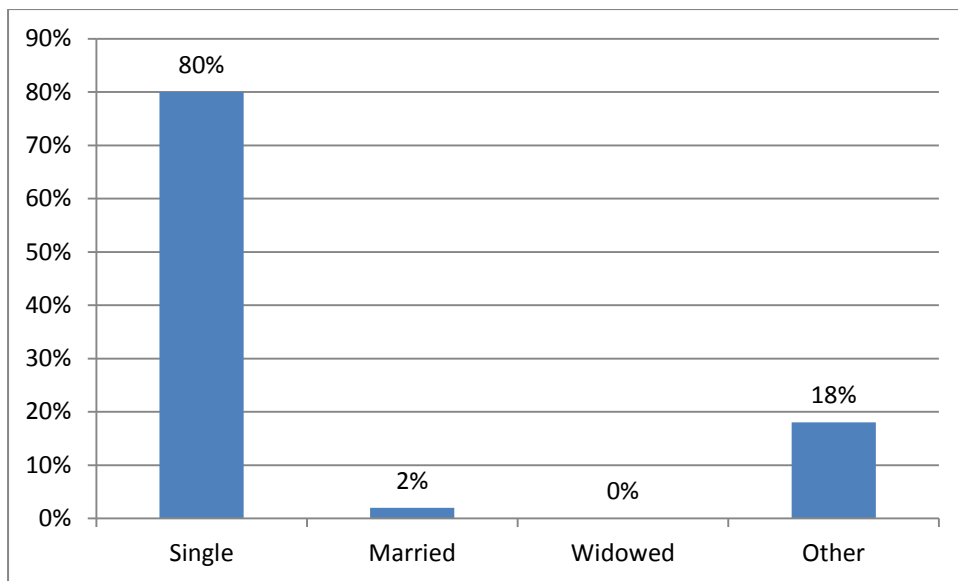


Figure 4.4 Relationship status of respondents

4.1.5 Respondents' Religion

Of the 342 respondents, 13 (4%) belonged to the African traditional religion, 3 (.9%) belonged to the Buddhism, 8 (2.3%) belonged to Hinduism, 1 (.3%) belong to Judaism, 8 (2.3%) belonged to Islam, 298 (87.6%) belong to Christianity and 11 (3.2%) were other.

Table 4.5 Respondents' religion

Religion	Frequency	Valid per cent	Cumulative per cent
African Tradition	13	3.8	3.8
Buddhism	3	.9	4.7
Hinduism	8	2.3	7.0
Judaism	1	.3	7.3
Islam	8	2.3	9.6
Christianity	298	87.2	96.8
Other	11	3.2	100.0
TOTAL	342	100.0	

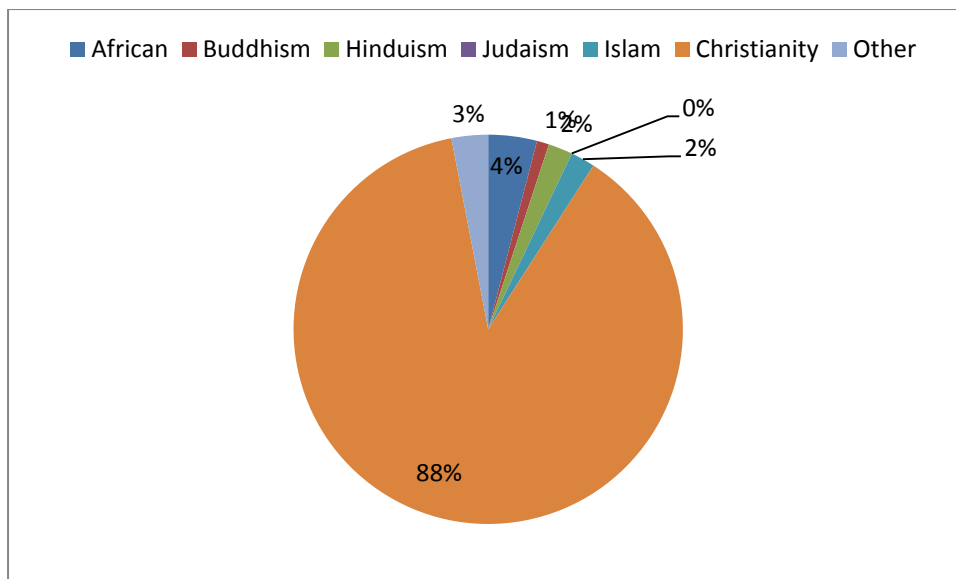


Figure 4.5 Respondents' religion

4.1.6 Age at Sexual Debut

Of the 337 respondents, 29 (7%) had their first sexual intercourse below the age of 13; 17 (5%) at the age of 14; 20 (6%) at the age of 15; 55 (16%) at the age of 16; 50 (15%) at the age of 17; 36 (11%) at the age of 18; 29 (7%) at the age of 19; 11 (3%) at the age of 20; 11 (3%) when they were above 20 years and 79 (23%) had never had sexual intercourse.

Table 4.6 Age at sexual debut

Age	Frequency	Valid percent	Cumulative percent
<13 years	29	8.6	8.6
14 years	17	5.0	13.6
15 years	20	5.9	19.6
16 years	55	16.3	35.9
17 years	50	14.8	50.7
18 years	36	10.7	61.4
19 years	29	8.6	70.0
20 years	11	3.3	73.3
>20 years	11	3.3	76.6
I have never had sexual intercourse	79	23.4	100.0
TOTAL	337	100.0	

4.1.7 Sexual Partner Age Difference

Out of 341 respondents, 160 (47%) have sexual partners with an age difference of 0-5 years, 22 (7%) have sexual partners with an age difference of 6-10 years, 8 (2%) have sexual partners with an age difference of 11 years and above and 151 (44%) don't have a sexual partner.

Table 4.7 Sexual partner difference

Age difference	Frequency	Valid per cent	Cumulative per cent
0-5 years	160	46.9	46.9
6-10 years	22	6.5	53.4
>11 years	8	2.3	55.7
No sexual partner	151	44.3	100.0
TOTAL	341	100.0	

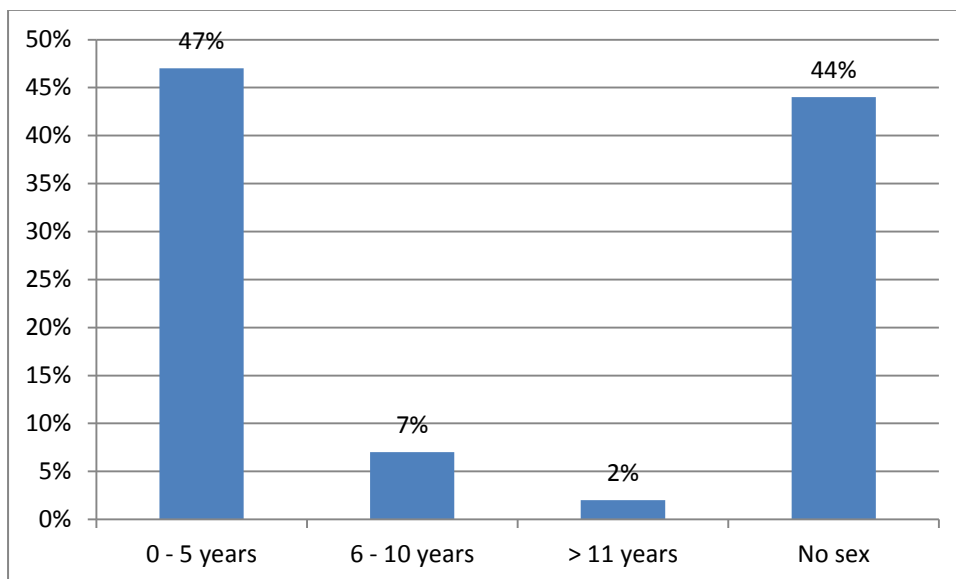


Figure 4.6 Sexual partner age difference

4.1.8 Sexual Partners Frequency in the Last three Months

Of the 339 respondents, 141 (42%) did not have any sexual partners, 187 (54%) had between 1-5 sexual partners, 9 (3%) had between 6-10 sexual partners and 2 (1%) had 11 or more sexual partners.

Table 4.8 Sexual partner frequency in the past three months

Number of sexual partners	Frequency	Valid per cent	Cumulative per cent
0	141	41.6	41.6
1-5	187	55.2	96.8
6-10	9	2.7	99.4
>11	2	.6	100.0
Total	339	100.0	

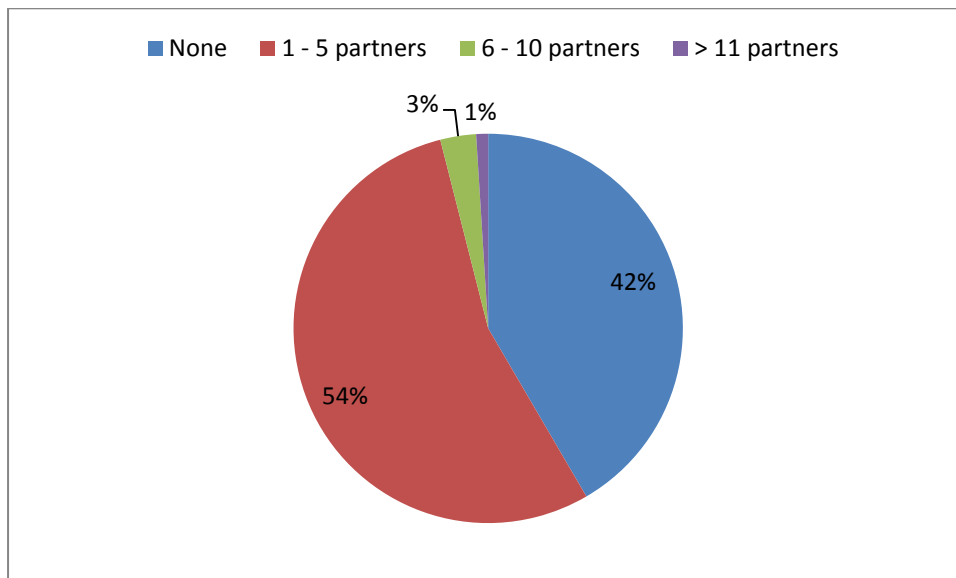


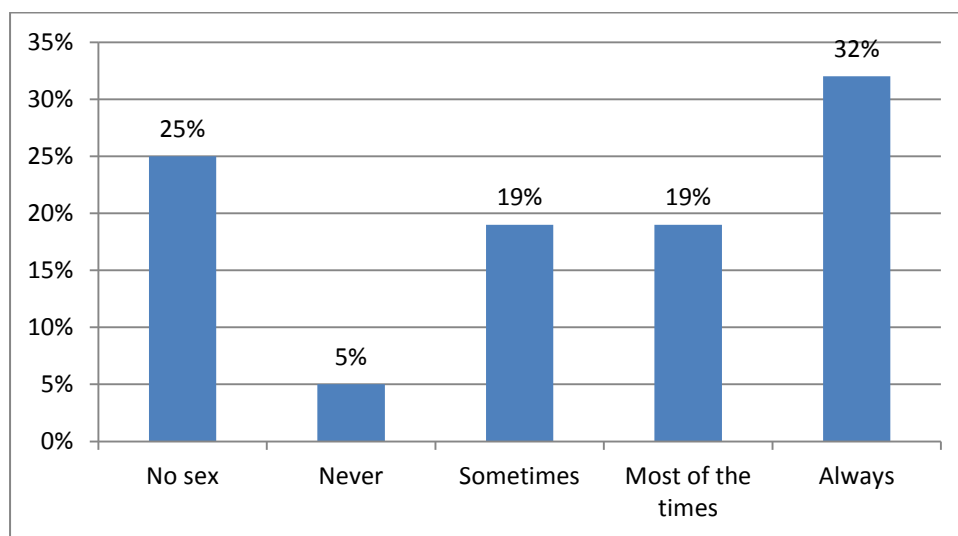
Figure 4.7 Sexual partner frequency in last three months

4.1.9 Condom Use

Of the 337 respondents, 83 (25%) never had sexual intercourse, 18 (5%) never used a condom during sexual intercourse, 64 (19%) use condom sometimes during sex, 64 (19%) use condom most of the time during sexual intercourse and 108 (32%) always use a condom during sexual intercourse.

Table 4.9 Condom Use

Condom use	Frequency	Valid percent	Cumulative percent
Never had sexual intercourse	83	24.6	24.6
Never used a condom during sexual intercourse	18	5.3	30.0
Use condom sometimes during sexual intercourse	64	19.0	49.0
Use condom most of the time during sexual intercourse	64	19.0	68.0
Always use condom during sexual intercourse	108	32.0	100.0
TOTAL	337	100.0	

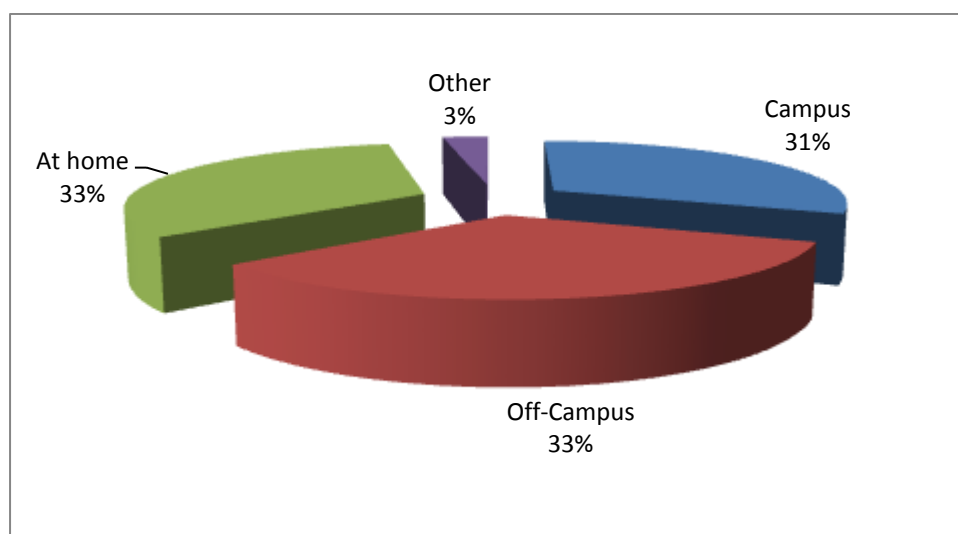
**Figure 4.8 Condom use**

4.1.10 Place of Residence

Of the 342 respondents, 105 (31%) stay on campus residence, 114 (33%) stay at an off-campus students residence, 113 (33%) stay at home and 10 (3%) indicated other.

Table 4.10 Respondents' place of residence

Place of residence	Frequency	Valid per cent	Cumulative per cent
On campus residence	105	30.7	30.7
Off campus residence	114	33.3	64.0
At home with parent/relatives/siblings	113	33.0	97.1
Other	10	2.9	100.0
TOTAL	342	100.0	

**Figure 4.9 Respondents place of residence**

4.1.11 Alcohol Consumption

Of the total respondents, 202 (59%) drink alcohol and 140 (41%) do not drink alcohol.

Table 4.11 Alcohol consumption

Alcohol Consumption	Frequency	Valid per cent	Cumulative per cent
Yes	202	59.1	59.1
No	140	40.9	100.0
TOTAL	342	100.0	

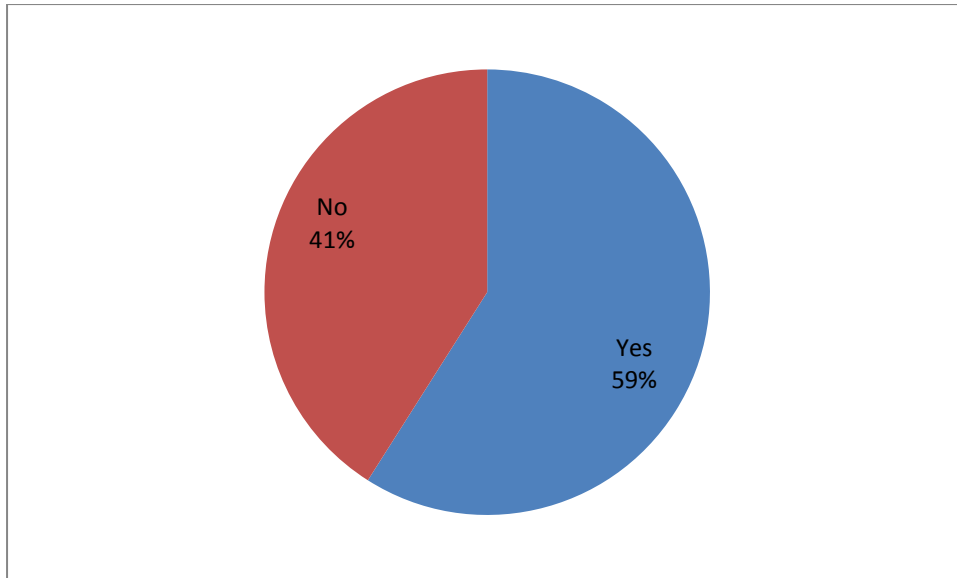


Figure 4.10 Alcohol consumption

4.2 Likert Scale Analysis

A four-point Likert Scale with 1 as 'strongly agree' and 4 as 'strongly disagree' was used to measure responses on each of the thirty items, which are further sub-divided into sub-sections namely: attitudes on sexual practices and behaviours prevalent on campus, perceived social norms and values regarding sexual practices and behaviours on campus and individual perception of risk with regards to the adoption of high risk sexual behaviour on campus. Responses on each of the four categories were summated for each item as indicated by the percentages in the tables below, and inferences were made.

4.2.1 Attitudes on Sexual Practices and Behaviours Prevalent on Campus

Table 12 below summarises the findings on respondents' attitudes around sexual practices and behaviours that are prevalent on campus. Most of the respondents agreed to some of the preventative measures presented in the questionnaire as ways of preventing unintended pregnancy, Sexually Transmitted Infections (STIs) including HIV. As indicated in Table 4:12 below, 93% were of the opinion that abstaining from sex is a preventative measure, 87% were of the view that avoiding casual sex is a preventative measure, 70% were of the view that being faithful to one sexual partner is a preventative measure, 88% were of the view that not having multiple and concurrent partners is a preventative measure and 70% were of the

view that not having an older sexual partner (inter-generational sex) is a preventative measure. Lastly, 97% of the respondents were of the view that preventing unintended pregnancy and Sexually Transmitted Infections (STIs) including HIV should be a priority for every student on campus.

Table 4.12 Attitudes on sexual practices and behaviours on campus

Statement	Response			
	Strongly agree	Agree	Disagree	Strongly disagree
Abstaining from sex prevents unintended pregnancy and Sexually Transmitted Infections (STIs) including HIV (n=340)	65% (n=221)	28% (n=96)	5% (n=17)	2% (n=6)
Avoiding having sex with somebody that I just met (casual sex or one-night stand) prevents unintended pregnancy and Sexually Transmitted Infections (STIs) including HIV (n=341)	61% (n=207)	26% (n=90)	9% (n=30)	4% (n=14)
Being faithful to one sexual partner prevents unintended pregnancy and Sexually Transmitted Infections (STIs) including HIV (n=339)	40% (n=134)	30% (n=102)	20% (n=68)	10% (n=35)
Having more than one sexual partner at a time increases chances of unintended pregnancy and Sexually Transmitted Infections (STIs) including HIV (n=341)	61% (n=206)	27% (n=93)	6% (n=21)	6% (n=21)
Having a sexual partner much older than you (sugar mommy/sugar daddy syndrome) makes it difficult to negotiate safe sex (condom use and faithfulness) (n=338)	32% (n=109)	38% (n=130)	20% (n=66)	10% (n=33)
Preventing unintended pregnancy and Sexually Transmitted Infections (STIs) including HIV should be a priority for every student on campus (n=337)	80% (n=269)	17% (n=57)	2% (n=8)	1% (n=3)

4.2.2 Perceived Social Norms and Values Regarding Sexual Practices and Behaviours on Campus

As indicated in Table 4:13 below, the following are accepted social norms and values regarding sexual practice and behaviour on campus: engaging in sexual intercourse (55%), casual sex (55%), multiple and concurrent sexual partners (62%), condom use (54%). On the other hand, transactional sex is not an accepted practice (83%).

Table 4.13 Perceived social norms and values

Statement	Response			
	Strongly agree	Agree	Disagree	Strongly disagree
Abstaining from sex is considered 'taboo' on campus (n=332)	16% (n=52)	29% (n=97)	40% (n=132)	15% (n=51)
Having sexual intercourse with somebody that I just met (casual sex/one-night stand) is an accepted practice on campus (n=337)	10% (n=34)	45% (n=150)	27% (n=91)	18% (n=62)
Being faithful to one sexual partner at a time is considered old fashioned on campus (n=333)	15% (n=49)	34% (n=114)	35% (n=117)	16% (n=53)
Having more than one sexual partner at a time is an accepted practice on campus (n=325)	13% (n=43)	49% (n=160)	27% (n=88)	11% (n=34)
Having a sexual partner much older than you (sugar mommy/sugar daddy syndrome) is an accepted practice on campus (n=337)	13% (n=45)	41% (n=138)	33% (n=110)	13% (n=44)
My friends would disapprove if I abstain from sex (n=332)	13% (n=43)	14% (n=47)	36% (n=118)	37% (n=124)
My friends would approve if I have sex with somebody that I just met (casual sex/one-night stand) (n=336)	12% (n=39)	22% (n=74)	29% (n=97)	37% (n=126)
My friends would approve if I have sex with somebody much older than me (n=338)	8% (n=26)	30% (n=103)	37% (n=125)	25% (n=84)
My friends would disapprove if I become faithful to one sexual partner at a time (n=339)	8% (n=27)	15% (n=49)	34% (n=116)	43% (n=147)

Statement	Response			
	Strongly agree	Agree	Disagree	Strongly disagree
My sexual partner would agree to use a condom every time we have sex (n=324)	42% (n=137)	40% (n=130)	13% (n=43)	4% (n=14)
My friends would disapprove if I use condom every time I have sex (n=334)	5% (n=17)	8% (n=28)	35% (n=117)	52% (n=172)
My friends would approve if I have sex in exchange for money or goods (n=335)	7% (n=23)	10% (n=32)	21% (n=71)	62% (n=209)

4.2.3 Individual Perception of Risk with regards to the Adoption of High Risk Sexual Behaviour on Campus

Most respondents have indicated that they have internalised their own risk profile and they take personal responsibility if they adopt high risk sexual behaviour in the context of HIV, unintended pregnancy and STIs. As indicated in Table 4:14 below, 64% of the respondents are of the view that having financial needs should not make abstaining from sex, or avoiding casual sex, or having sex in exchange for money or having sex with a much older partner difficult. On the contrary, most of the respondents acknowledged that being under the influence of alcohol makes it difficult to negotiate for safer sex and 53% acknowledged that being under the influence of alcohol makes it difficult to abstain from casual sex. Lastly, most respondents acknowledged personal responsibility to avoiding high risk sexual behaviour: 88% citing avoiding transactional sex, 94% citing avoiding sex with an older sexual partner, 95% citing personal responsibility to use condoms every time they have sex, 92% citing avoiding casual sex and 96% citing the option to abstain from sex.

Table 4.14 Individual perception of risk

Statement	Response			
	Strongly agree	Agree	Disagree	Strongly disagree
Having more financial needs will make abstaining from sex much more difficult (n=335)	9% (n=29)	27% (n=89)	34% (n=114)	30% (n=103)
Being under the influence of alcohol makes it difficult to negotiate for safe sex (n=336)	25% (n=85)	45% (n=153)	18% (n=59)	12% (n=39)
Being under the influence of alcohol will make avoiding sex with somebody that I just met (casual sex/one-night stand) much more difficult (n=335)	22% (n=74)	31% (n=103)	31% (n=104)	16% (n=54)
Having more financial needs will make being faithful to one partner much more difficult (n=334)	9% (n=31)	18% (n=59)	40% (n=132)	33% (n=112)
Having more financial needs will make avoiding sex with somebody much older (sugar mommy/sugar daddy syndrome) much more difficult (n=335)	9% (n=31)	28% (n=94)	38% (n=128)	25% (n=82)
Having more financial needs will make avoiding having sex in exchange for money and goods difficult (n=333)	8% (n=26)	32% (n=108)	35% (n=116)	25% (n=83)
It is up to me whether or not I have sex in exchange for money or goods (n=329)	61% (n=202)	27% (n=89)	9% (n=27)	3% (n=11)
It is up to me whether or not I have sex with somebody much older than me (sugar mommy/sugar daddy syndrome) (n=328)	63% (n=208)	31% (n=100)	3% (n=11)	3% (n=9)
It is up to me whether or not I am faithful to one sexual partner at a time (n=333)	66% (n=218)	29% (n=98)	4% (n=14)	1% (n=3)
It is up to me whether or not I use a condom every time I have sex (n=331)	64% (n=212)	28% (n=94)	6% (n=20)	2% (n=5)
It is up to me whether or not I have sex with somebody that I just met (casual sex/one-night stand) (n=332)	62% (n=203)	30% (n=101)	5% (n=18)	3% (n=10)
It is up to me whether or not I abstain from sex (n=329)	71% (n=233)	25% (n=84)	2% (n=7)	2% (n=5)

4.3 Regression Analysis and Composite Variable

Regression analysis was conducted using SPSS version 23. The results shown in Table 4:15 were used to test the composite variable. The composite variable consisted of the following variables: attitude, peer pressure, campus culture, alcohol use, personal choice, financial needs, sexual partner influence and fear of being an outcast.

The logistic regression results show that the following variables - peer pressure, campus culture, alcohol use, sexual partner influence and fear of being an outcast - explained the observed high risk sexual behaviour among respondents at 95% confidence interval. However, in the regression model the following variables were also included: personal choice, financial needs and attitudes - and they were not significant in explaining the observed high risk sexual behaviour at 95% confidence interval. The observed high risk sexual behaviour among respondents consisted of the following: early sexual debut, inter-generational sex (having a sexual partner who is six years or older), multiple and concurrent partners, unprotected sex, transactional sex and sex under the influence of alcohol and drugs.

Table 4.15 Logistic regression analysis and composite variable

Variable	Score	Significance
Attitude	.340	.560
Peer pressure	7.315	.007
Campus culture	5.383	.020
Alcohol use	19.937	.000
Personal choice	.435	.509
Financial needs	.012	.912
Sexual partner influence	5.467	.019
Fear of being an outcast	3.947	.047
Overall statistics	39.133	.000

4.4 Thematic Analysis

The following themes were generated from the responses of the open ended questions of the questionnaire as well responses from the focus group discussions: perceived sexual practices prevalent on campus (categorised by gender), HIV programme content, sources for sexual choices and practices, awareness of sexual programme on campus, factors leading to unprotected sex, how campus culture perpetuates unsafe sexual practices and ‘root causes’ for the adoption of high risk sexual behaviour in the context of HIV/AIDS epidemic.

4.4.1 Perceived Common Sexual Practices Prevalent on Campus: Females

Observations from female respondents on prevalent sexual practices on campus are further categorised into three overlapping and linked sub-themes, namely: forms of high risk sexual behaviour, peer pressure (as the determining factor for prevalent sexual practices on campus) and forms of sexual relations. One night stands, oral sex, friends with benefits, hook ups, multiple partners, unprotected sex, ‘oggy practices/group sex’ (slang term used when three or four people are having sex with each other at the same time), transactional sex and sex under the influence of alcohol and drugs were identified as forms of high risk sexual behaviour that are prevalent on campus. Sexual relations which also form part of prevalent sexual practices on campus include unprotected sex, foreplay (kissing and touching) blow jobs, oral sex, vaginal sex, casual sex and one night stands.

Lastly, peer pressure was identified as one of the determining factors for prevalent sexual practices on campus. The need to identify with campus culture (sense of belonging) by either ‘sleeping with the hottest guy or girl’, dating sugar daddies or having unprotected sex results in students adopting certain sexual practices, whether they are safe or not; hence in this study ‘peer pressure’ has been identified as one of the root causes for the adoption of high risk sexual behaviour in the context of HIV/AIDS epidemic.

4.4.2 Prevalent Sexual Practices on Campus: Males

Observations from male students were categorised into two sub-themes, namely: forms of high risk sexual behaviour and forms of sexual relations. Peer pressure, which is a third category in the female respondents’ observations, was not identified in the male respondents. Perhaps male students do not succumb to peer pressure as female students do and this can be

linked to the ‘sugar daddy’ phenomena which is common with female students on campus. However, there are overlaps on forms of high risk sexual behaviour and forms of sexual relations between female and male responses. Sex parties where students do ‘bottle games’ and ‘lap dances’, sex under the influence of alcohol and drugs, ‘oggies’ (group sex), one night stands, casual sex, ‘gang bang’ (when a group of males are having sex with one female at the same time) and dressing up to attract attention were identified as forms of high risk sexual behaviour by male respondents, which in turn forms part of prevalent sexual practices on campus.

Males sleeping with females (heterosexual intercourse), males sleeping with males (homosexuality), blow jobs, sexual intercourse in classrooms, ‘three- and four-somes’ (group sex/oggies) and vaginal sex were identified as forms of sexual relations which are also prevalent on campus. The research objective: ‘To gather information about students’ sexual knowledge, attitudes and practices’ was also confirmed by these observations.

4.4.3 HIV Prevention Programme content

From the responses, the proposed HIV prevention programme on campus has been categorised into three themes, namely: accurate sexual and reproductive health information, coping strategies and empowerment strategies. Respondents indicated that the following topics should form part of an accurate sexual reproductive health information theme: safer sex practices, condom usage, STIs, promotion of HIV counselling and testing, prevention of unplanned pregnancy and HIV infection, myths on HIV/AIDS epidemic, PMTCT programme benefits and regular sex talks. Under the empowerment strategies theme, the following topics were identified: provision of counselling services, skills for female students to assert and take charge of their sexual decisions, addressing transactional sex, management of self-esteem and advantages and disadvantages of engaging in high risk sexual behaviour. Lastly, addressing alcohol and drug abuse, educating students that HIV is a manageable disease and not a death sentence, HIV transmission, importance of practising safer sex, addressing ‘sugar daddy/mommy’ phenomena, educating students on various contraceptives available and implementation of part time jobs for students with financial needs were identified as topics under the coping strategies theme which should form part of the HIV prevention programme on campus.

4.4.4 Sources of Sexual Choices and Practices

Information recorded on what informs students' sexual choices and practices on campus is categorised into the following five interlinked sub-themes: personal knowledge, university culture and shock, friends' knowledge and experiences, Information from the institution and social media.

Personal knowledge

Under personal knowledge, the following were identified as the factors informing students' sexual choices and practices: upbringing/family background and general knowledge (socialisation), self-knowledge acquired in high school, new found freedom at university, sexual desire, personal knowledge and lack of self-knowledge, 'reverence from God' and values from home. These were the factors identified under personal knowledge and they in turn influence students' sexual choices and practices on campus, regardless of whether they are safe or not.

University Culture Shock

One of the sources of information for students' sexual choices and practices identified in this study is university culture shock. This comprises of the following factors: university vibe or atmosphere, peer pressure, independence (new found freedom because parents and guardians are not around), easier access to illegal substances and alcohol, financial problems, sense of belonging (wanting to be 'cool') and influence of alcohol and drug abuse which impairs judgement. Information and experiences from friends also form part of university culture in informing students' sexual choices and practices. As highlighted earlier, peer pressure, independence, financial problems as well as abuse of alcohol and drugs which impairs judgement constitute the 'root causes' for the adoption of high risk sexual behaviour by students on campus.

Information and Experiences from Friends

Information and experiences from friends also play a big role in influencing students' sexual choices and practices on campus. This study has identified the following under this category: peer pressure, trying to fit in (sense of belonging and identity), societal values, alcohol and drug abuse which impairs judgement, sexual cravings, boredom, financial problems and how celebrities' sexual life is portrayed. Alcohol and drug abuse, which impairs judgement, leads

to boredom and sexual cravings. Societal peer pressure, on the other hand, influences students to engage in sex as a way of fitting in the culture and emulating how celebrities' sexual life is portrayed by the media. In line with the research question, peer pressure, fear of not fitting in, financial problems as well as alcohol and drug abuse constitute the 'root causes' for the adoption of high risk behaviour on campus by students.

Information from the Institution

The respondents also confirmed that the institution has got formal programmes on sexuality and reproductive health issues and they identified the following: external organisations that conduct HIV awareness and testing (but this was cited as not sufficient), sessions conducted by SRC especially for first year students during the orientation week, teachings from churches around campus, and information from residence managers, lecturers and other students. There is an acknowledgement from the respondents that there is some form of formal programmes, although not on regular basis, hence the need for a formal HIV prevention programme covering accurate sexual reproductive health information, coping strategies as well as empowerment strategies

Social Media & Internet

It is not unusual in the digital/technological era for the media to influence or play a big part in influencing students' sexual choices and practices. Media consists of print, web, mobile, outdoor, television and radio; and all these channels are accessible to students. In addition, students on campus are issued with Tablets as part of the university's e-learning approach and they are loaded with all the textbooks for the academic year in question. They also access free wi-fi on campus and this makes it easier to be active on social media (which portrays sexual practices in a certain way which students will then emulate). This sentiment was also echoed by Leclerc-Madhala (2004) who argues that the great desire by students to identify themselves with modernity encourages them to adopt risky sexual behaviours that expose them to HIV infection.

4.4.5 Awareness and Visibility of Sexual Programmes on Campus

Respondents acknowledged that there are formal awareness programmes on campus on sexual reproductive health including HIV/AIDS, even though not every respondent seemed to be aware of these programmes. Some of the services mentioned which form part of the

campus awareness programmes include: counselling services, HIV counselling and testing services offered by external organisations (even though service uptake is very low), sessions for first year students during the orientation week, and a sexologist who is invited periodically to provide awareness talks. What was interesting to note was the fact that students don't seem to be interested in the services offered due to various reasons. Some cited HIV/AIDS fatigue since they have been learning about this from primary school and some cited stigma, especially with HIV counselling and testing uptake. Perhaps the general perception on campus is that accessing HIV counselling and testing services indirectly disclose one's risky sexual behaviour which in turn will lead to stigma and discrimination. In addition, the fact that the HIV counselling and testing services are accessible periodically and not on daily basis and are being offered by external service providers raises attention to such an extent that students would not want to be seen accessing the services. It was also observed that students would rather engage in unprotected sex than be seen collecting condoms or buying condoms from the kiosk.

4.4.6 Factors leading to unprotected sex

The findings revealed that there are a lot of factors that influence students to engage in unprotected sex on campus. These include stigma on using condoms and getting tested for HIV, the 'sugar daddy' phenomena, inter-generational sex, peer pressure, university culture and lack of individual perception of risk because students have insufficient information on the risks of unprotected sex.

In addition, all these factors identified question the effectiveness of campus awareness programmes discussed earlier. Perhaps the notion that the campus awareness programmes on sexual reproductive health and HIV/AIDS are not well structured and coordinated is the main reason why they don't seem to work on campus. A recommendation would be to integrate structured activities on sexual reproductive health and HIV/AIDS awareness into the 'campus lifestyle programme' or the proposed HIV prevention programme so that these activities are not viewed with negative connotations, hence students do not want to be associated with them.

4.4.7 Campus Life, Stigma and their Effect on the Perpetuation of Unsafe Practices

Campus social life and related stigma have been identified as factors that perpetuate adoption of unsafe sexual practice, which is high risk behaviour in the context of HIV, STIs and unwanted pregnancy epidemics. Campus social life is characterised by smoking illegal substances such as marijuana/dagga, drinking alcohol, attending church events, social events organised by the Student Representative Council and participating in extra-mural activities such as sport, drama, etc. Out of these, alcohol and drug abuse have been cited as the main causes of unsafe sexual practices because they impair students' judgement.

Furthermore, the fact that unsafe sexual practices are prevalent on campus questions the effectiveness of the campus awareness programmes discussed earlier. Perhaps the stigma around use of condoms and HIV counselling and testing compromises the effectiveness of campus awareness programmes because the environment is not conducive for students to access services and practise safer sex. For example, it was cited that counselling services are available on campus and yet students are not keen to take up the HIV test, let alone live openly with HIV if they test positive; hence a recommendation for the institution to implement a formal and rather broad programme beyond HIV information in order to tackle all the factors preventing students from practising safer sex.

CHAPTER 5: CONCLUSION, LIMITATIONS AND RECOMMENDATIONS

5.1 Conclusion

The study employed the ‘social norms theory’ in order to establish the ‘root causes’ of high risk sexual behaviour by undergraduate students in the context of HIV, STI and unwanted pregnancy epidemics. At the core of the social norms theory (Boston University School of Public Health, 2013) is the notion of perceived norms versus actual norms, which in turn creates misperceptions. In other words, the theory is anchored on the power of the environment in which one lives and peer influences which usually create misperceptions that may promote risky behaviour as students try to conform to ‘accepted’ norms and values when it comes to sexual practices.

Firstly, the study managed to gather information about students’ sexual knowledge, attitudes and practices, as highlighted under the thematic analysis section. Secondly, the following forms of sexual practices that are prevalent on campus were further categorised as forms of high risk sexual behaviour: early sexual debut, inter-generational sex, multiple and concurrent partners, unprotected sex, sex under the influence of alcohol and illegal drugs and transactional sex. Comparing these findings to the study which was conducted by Hoque (2011) at Mangosuthu University of Technology which only targeted female students, the following four forms of sexual behaviour were also classified as high risk: multiple partners, unprotected sex, transactional sex and sexual intercourse under the influence of alcohol and drugs.

Thirdly, the following were identified as the ‘root causes’ of the high risk sexual behaviour described above: peer pressure, independence (varsity freedom), financial needs, drug and alcohol abuse, fear of being an outcast, need to identify with modernity, lack of individual perception of risk, campus culture and sexual partner influence. However, a fundamental difference with the study by Hoque is that poverty and lack of information were identified as factors influencing female students at Mangosuthu University of Technology to engage in high risk behaviour whereas the above nine factors were identified as the ‘root causes’ of high risk sexual behaviour by students in this study.

Existing literature from earlier studies confirms some of these ‘root causes’ of high risk sexual behaviour as outlined below. Eleazar (2009), in his study at three state universities in KwaZulu-Natal, concludes that the home environment where parents or guardians do not enforce strict regulations when it comes to sexual behaviour resulted in students from these home environments adopting risky sexual behaviour.

The finding on financial needs as ‘root cause’ is echoed by Mulwo (2009) when the following conclusion is made: ‘The fact that students’ life on campus is characterised by little financial resources for food, tuition fees, clothes, books and petty cash for other day-to-day needs promotes high risk sexual behaviour.’

Drug and alcohol abuse was also identified as one of the ‘root causes’ of high risk sexual behaviour, and it supports evidence from earlier studies. In a study that was conducted in 2009 by Lengwe at the three state universities in KwaZulu-Natal Province, it was concluded that experimentation with drugs and sex also describes students’ life on campus and, consequently, encourages them to adopt high risk sexual behaviour.

Lack of individual perception of risk by respondents in this study as one of the ‘root causes’ also confirms findings in earlier studies. In a study that was conducted by Nkomazana & Maharaj (2014) at two universities in Zimbabwe (one public and one private), it was also concluded that as long as university students do not perceive individual risk to HIV infection, they continue to expose themselves to risk sexual behaviour. It is also interesting to note that although the two studies are underpinned by different theories, they arrive at the same conclusion with regards to individual perception of risk. The study by Nkomazana & Maharaj was underpinned by the following behavioural theories: the health belief model, the AIDS risk reduction model and theory of reasoned action; this study is underpinned by the *social norms theory*.

Fourthly, the findings of this study proposed an HIV prevention programme on campus which should contain the following three themes: accurate sexual and reproductive health information, coping strategies and empowerment strategies. Respondents indicated that the following topics should form part of an accurate sexual reproductive health information theme: safer sex practices, condom usage, STIs, promotion of HIV counselling and testing, prevention of unplanned pregnancy and HIV infection, myths on HIV/AIDS epidemic, PMTCT programme benefits and regular sexual talks. Under the empowerment strategies

theme, the following topics were identified: provision of counselling services, skills for female students to assert and take charge of their sexual decisions, addressing transactional sex, management of self-esteem and advantages and disadvantages of engaging in high risk sexual behaviour. Under the coping strategies theme the following topics were identified: addressing alcohol and drug abuse, educating students that HIV is a manageable disease and not ‘a death sentence’, HIV transmission, importance of practising safer sex, addressing the sugar daddy/mommy phenomena, educating students on various contraceptive available and implementation of part time jobs for students with financial needs.

Lastly, these findings confirm one of the core tenets of the ‘social norms theory’ which is the power of the environment in which one lives and how it influences adoption of high risk sexual behaviour. Specifically in this study, all the above mentioned nine factors which are classified as ‘root causes’ form part of the campus culture/environment and are perpetuating adoption of high risk sexual behaviour, as students are conforming to the accepted norms and values when it comes to sexual practices on campus.

5.2 Limitations

5.2.1 Research Questionnaire

Overall, the questionnaire was too long as participants took longer to fill it out, this might have influenced participants to selectively leave some questions blank. Furthermore, some participants may have struggled to express themselves in writing compared to speaking and the researcher could not ask follow-up questions (Christensen et al., 2011).

Some participants struggled to interpret Question 43 which reads: ‘According to your understanding, what constitutes high risk sexual behaviour in the context of HIV/AIDS epidemic?’ and researcher had to clarify to those who asked for clarity; the assumption is that some did not bother to get the actual meaning of the question and as a result they might have left it blank or answer it according to their own interpretation which might have been different from what the question intended. Perhaps future studies might clarify it or make it more explicit; for example: ‘According to your understanding, what is regarded as high risk sexual behaviour in the context of HIV/AIDS epidemic?’

Some participants indicated that the options for Question 4, which reads: ‘What is your current relationship status?’ did not cater for their relationship status, which they identified as ‘in a relationship’ which means that they have a sexual partner (dating as they call it). The following five options were provided for in the questionnaire: single, married, divorced, widowed and other and perhaps future studies targeting university students should add the sixth option: ‘In a relationship’ - to cater for students who are dating.

5.2.2 Focus Group Discussion

Three male and three female focus group discussions were going to give the researcher a number of male and female participants that is proportional to the number of male and female students on campus but this could not be achieved since she managed to conduct four out of the six planned FGDs as less participants volunteered to take part in the sessions.

5.3 Recommendations

Although homosexuality was identified by male respondents in this study as a form of sexual practice prevalent on campus, further research needs to be done to investigate the phenomena of Men who have sex with other Men (MSM), Lesbian, Gay, Bisexual, Transgender – and students’ knowledge, attitudes, perceptions and behaviours relating to sex, HIV, alcohol and substance use. This is because this study was silent on this phenomenon and as a result, the needs of this sub-population might not be adequately addressed in the proposed HIV prevention programme to be implemented on campus. According to the HEAIDS report (2015), higher education institutions are being challenged to implement HIV responses that are inclusive of sexual minorities on campus.

The ‘social norms theory’ also proposes that demystifying these misperceptions will result in a decrease of risky sexual behaviour (Scholly, et al., 2005). In other words, the power of the environment and peer influences can be used to promote behaviour change, as opposed to just the power of an individual to promote behaviour change. In line with this argument, this study recommends that the proposed HIV prevention programme on campus should be underpinned by the theory so that the misperceptions around sexual practices on campus can be demystified in an attempt to decrease adoption of high risk sexual behaviour by students in

the context of the HIV, STI and unwanted pregnancy epidemics. The power of varsity culture and peer influence can be channelled through the HIV prevention programme so that students can perceive and internalise personal risk to the epidemics and adopt less risky sexual practices.

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APPENDIX 1: RESEARCH QUESTIONNAIRE

RESEARCH STUDY QUESTIONNAIRE

Research Study Topic: Factors influencing adoption of high risk sexual behaviour by undergraduate students at a private higher education institution, in the context of the HIV/AIDS epidemic.

Instructions:

- Choose only one answer per question.
- Please be open and honest with your ratings and comments.
- Your opinion - no matter how positive or negative - is valuable to this study and will be taken into consideration.

Section 1: Demographic data

- The following questions are about your personal details.
- Please make a cross (X) in the space provided next to your selected answer.

*To keep responses **anonymous**, please do not write your name on the questionnaire.*

1. What is your age group?

18-20 years	
20-25 years	
25-30 years	
<30 years	

2. What is your gender?

Male	
Female	

3. What is your race?

White	
Indian	
Coloured	
Black	
Other	

4. What is your current relationship status?

Single	
Married	
Divorced	
Widowed	
Other	

5. What is your religion?

African tradition	
Buddhism	
Hinduism	
Judaism	
Islam	
Christianity	
Other	

6. How old were you when you first had sexual intercourse?

>13 years	
14 years	
15 years	
16 years	
17 years	

18 years	
19 years	
20 years	
>20 years	
I have never had sexual intercourse	

7. What is the age difference between you and your current sexual partner?

0-5 years	
6-10 years	
>11 years	
I do not have a sexual partner	

8. How many sexual partners did you have in the last 3 months?

0	
1-5	
6-10	
>11	

9. How would you rate your frequency of condom use during sexual intercourse?

Never had sexual intercourse	
Never used a condom during sexual intercourse	
Use condom sometimes during sexual intercourse	
Use condom most of the time during sexual intercourse	
Always use condom during sexual intercourse	

10. Where do you currently live?

On campus residence	
Off campus residence	
At home with parent/relatives/ siblings	
Other	

11. Do you drink alcohol?

Yes	
No	

Section 2: Attitudes

The following statements are about your views on specific sexual practices and behaviours prevalent on campus. You might not have engaged in any of these behaviours but you hold certain beliefs and opinions about them. For each statement, please make a cross (X) in the appropriate column to indicate your response.

Statement	Response			
	Strongly agree	Agree	Disagree	Strongly disagree
12. Abstaining from sex prevents unintended pregnancy and Sexually Transmitted Infections (STIs) including HIV				
13. Avoiding having sex with somebody that I just met (casual sex or one-night stand) prevents unintended pregnancy and Sexually Transmitted Infections (STIs) including HIV				
14. Being faithful to one sexual partner prevents unintended pregnancy and Sexually Transmitted Infections (STIs) including HIV				
15. Having more than one sexual partner at a time increases chances of unintended pregnancy and Sexually Transmitted Infections (STIs) including HIV				

Statement	Response			
	Strongly agree	Agree	Disagree	Strongly disagree
16. Having a sexual partner much older than you (sugar mommy/sugar daddy syndrome) makes it difficult to negotiate safe sex (condom use and faithfulness).				
17. Preventing unintended pregnancy and Sexually Transmitted Infections (STIs) including HIV should be a priority for every student on campus				

Section 3: Perceived social norms and values

The following statements are about perceived social norms and values regarding sexual practices and behaviours on campus. For each statement, make a cross (X) in the appropriate column to indicate your response.

Statement	Response			
	Strongly agree	Agree	Disagree	Strongly disagree
18. Abstaining from sex is considered 'taboo' on campus				
19. Having sexual intercourse with somebody that I just met (casual sex/one-night stand) is an accepted practice on campus				
20. Being faithful to one sexual partner at a time is considered old fashioned on campus				
21. Having more than one sexual partner at a time is an accepted practice on campus				
22. Having a sexual partner much older than you (sugar mommy/sugar daddy syndrome) is an accepted practice on campus				
23. My friends would disapprove if I abstain from sex				
24. My friends would approve if I have sex with somebody that I just met (casual sex/one-night stand)				

Statement	Response			
	Strongly agree	Agree	Disagree	Strongly disagree
25. My friends would approve if I have sex with somebody much older than me				
26. My friends would disapprove if I become faithful to one sexual partner at a time				
27. My sexual partner would agree to use a condom every time we have sex				
28. My friends would disapprove if I use condom every time I have sex				
29. My friends would approve if I have sex in exchange for money or goods				

Section 4: Risk perception

The following statements are about individual perception of risk with regards to the adoption of high risk sexual behaviour on campus. For each statement, make a cross (X) in the appropriate column to indicate your response.

Statement	Response			
	Strongly agree	Agree	Disagree	Strongly disagree
30. Having more financial needs will make abstaining from sex much more difficult				
31. Being under the influence of alcohol makes it difficult to negotiate for safe sex				
32. Being under the influence of alcohol will make avoiding sex with somebody that I just met (casual sex/one-night stand) much more difficult				
33. Having more financial needs will make being faithful to one partner much more difficult				

Statement	Response			
	Strongly agree	Agree	Disagree	Strongly disagree
34. Having more financial needs will make avoiding sex with somebody much older (sugar mommy/sugar daddy syndrome) much more difficult				
35. Having more financial needs will make avoiding having sex in exchange for money and goods difficult				
36. It is up to me whether or not I have sex in exchange for money or goods				
37. It is up to me whether or not I have sex with somebody much older than me (sugar mommy/sugar daddy syndrome)				
38. It is up to me whether or not I am faithful to one sexual partner at a time				
39. It is up to me whether or not I use a condom every time I have sex				
40. It is up to me whether or not I have sex with somebody that I just met (casual sex/one-night stand)				
41. It is up to me whether or not I abstain from sex				

Section 5: General questions

Please share your general opinions and views on the questions below.

42. What are the common sexual practices that are prevalent on campus?

43. According to your own understanding, what constitutes high risk sexual behaviour in the context of HIV/AIDS epidemic?

44. What informs students' sexual choices and practices on campus?

45. What information and skills will students need on sexual and reproductive health?

46. If the institution had to implement an HIV prevention programme, what would you like to see the programme addressing?

End of questionnaire. Thank you so much for taking time to complete this questionnaire. Your thoughts, opinions and ideas are highly valued and will be considered for the purpose of this research study.

APPENDIX 2: FOCUS GROUP DISCUSSION GUIDE

FOCUS GROUP DISCUSSION GUIDE

Research Study Topic: Factors influencing adoption of high risk sexual behaviour by undergraduate students at a private higher education institution, in the context of the HIV/AIDS epidemic.

Materials and supplies for focus group discussion

- Attendance register
- Consent forms (one copy per participant)
- Name tags
- A copy of this Focus Group Discussion Guide for me as the facilitator
- 1 recording device
- Batteries for recording device
- Extra tapes for recording device
- Permanent marker for marking tapes with FGD name and date
- Notebook for note-taking (facilitator)
- Refreshments (optional)

Consent Process

Please ensure that participants have completed consent forms before you conduct the session. As a facilitator make sure participants understand the information below as it is outlined in the consent form.

Review the information below:

Thank you for agreeing to participate. I am interested to hear your valuable opinions, thoughts and ideas on the factors that influence the adoption of high risk sexual behavior on campus in the context of the HIV/AIDS epidemic.

- The purpose of this study is to establish why undergraduate students at the institution engage in high risk sexual behaviour that put them at risk of contracting HIV, STIs and unplanned pregnancies. The findings will in turn inform the design and implementation of an HIV intervention programme on the campus.
- The study has got the following four objectives:
 - To gather information about students' sexual knowledge, attitudes and practices.
 - To identify students' understanding of what constitutes high risk sexual behaviour.
 - To establish what knowledge informs their sexual choices.
 - To provide guidelines for and recommendations for a future HIV programme at the institution.
- The information you share in the session is completely confidential, and I will not associate your name with anything you say in the focus group.
- I would like to record the focus group discussion so that I can make sure to capture the thoughts, opinions, and ideas shared in the group. No names will be attached to the focus groups and the tapes will be destroyed as soon as they are transcribed.
- You may refuse to answer any question or withdraw from the study at any stage.
- In as much as I understand how important it is that this information is kept private and confidential, I will also ask you to respect each other's confidentiality.
- If you have any questions now or after you have completed the focus group discussion, you can always contact me using phone numbers that are on the consent form.

❖ *At this point, ensure that you collect all the signed consent forms before you continue.*

Introduction:

1. Welcome

Introduce yourself and circulate the attendance register with a few quick demographic questions (age, gender, programme of study, academic year on campus) around to the group while you are introducing the focus group.

Review the following:

- Who am I and what I am trying to do
- What will be done with this information

- Why I asked you to participate.

2. Explanation of the process

Ask the group if anyone has participated in a focus group before. Explain that focus groups are being used more and more, often in health and human services research.

About focus groups

- I will be learning from you (positive and negative)
- Not trying to achieve consensus, we're gathering information
- In this project, I am doing both questionnaires and focus group discussions. The reason for using both of these tools is that I can get more in-depth information from a smaller group of people in focus groups. This allows me to understand the context behind the answers given in the written survey and helps me explore topics in more detail than I can do in a written survey.

Logistics

- Focus group will last for about two hours.
- Feel free to move around.
- Feel free to go the rest rooms (show them where the bathrooms are situated).
- Help yourself to refreshments.

3. Ground Rules

Ask the group to suggest some ground rules. After they brainstorm some, make sure the following are on the list:

- Everyone should participate
- Information provided in the focus group must be kept confidential
- Stay with the group and please don't have side conversations
- Turn off cell phones if possible
- Have fun!

4. Turn on tape recorder

5. Ask the group if there are any questions before we get started, and address those questions.

6. Group Introductions:

- Let's do a quick round of introductions.
- In turns, can each of you tell the group your name, the programme you are studying and the academic year you are in (first year, second year).

Discussion begins, make sure to give people time to think before answering the questions and don't move too quickly. Use the probes to make sure that all issues are addressed, but move on when you feel you are starting to hear repetitive information.

Questions:

Let's start the discussion by talking about what constitutes social life on campus.

1. What do students do for fun? (after lectures and on weekends)

Probe for the following:

- *Hang out places around campus*
- *The general social life culture*

2. What are the common sexual practices that are prevalent on campus?

Probe for the following:

- *Sexual orientation (homosexuality, heterosexuality and bisexuality)*
 - *Casual sex (one-night stand)*
3. According to your own understanding, what constitutes high risk sexual behaviour in the context of HIV/AIDS epidemic?

Probe for the following:

- *Having sexual partners much older than you (sugar mommy/sugar daddy syndrome)*
 - *Students' financial needs on campus*
 - *Frequency of condom use*
 - *Multiple and concurrent couples*
 - *Casual sex (one-night stand)*
4. There is a general perception that students here on campus engage in high risk sexual behaviour that puts them at risk of contracting HIV, STIs and unintended pregnancy. Please share your thoughts and views.

Probe for the following:

- *Basic knowledge on HIV/AIDS and STIs*
- *Knowledge of own HIV status*
- *Prevalence of unintended pregnancy*
- *Confirmation if this is a 'perceived norm' or an 'actual norm'*
- *The need to belong/peer pressure*
- *Pessimism (no hope for future)*
- *Acquiring gadgets – trend setting*

5. What informs students' sexual choices and practices on campus?

Probe for the following:

- *Influence of mass media*
- *Instant gratification*
- *Peer pressure*
- *Identity and sense of belonging*

6. What information and skills will students need on sexual and reproductive health?

Probe for the following:

- *Availability of a student clinic on campus*
- *Access to contraceptives*
- *Availability of condoms on campus*
- *Availability of HIV Counselling and Testing services on campus*

7. If the institution had to implement an HIV prevention programme, what would you like to see the programme addressing?

Gather as many ideas as you can on this question.

Conclusion:

This concludes our focus group discussion. Thank you so much for coming and sharing your thoughts and opinions with me.

APPENDIX 3: RESEARCH ETHICS COMMITTEE APPROVAL – STELLENBOSCH UNIVERSITY



Approval Notice

Stipulated documents/requirements

31-Mar-2015

Ziki, Pondiso P

Proposal #: SU-HSD-000244

Title: Factors influencing adoption of high risk sexual behaviour by undergraduate students at Midrand Graduate Institute in the context of the HIV/AIDS epidemic

Dear Pondiso Ziki,

Your **Stipulated documents/requirements** received on **31-Mar-2015**, was reviewed by members of the **Research Ethics Committee: Human Research (Humanities)** via Expedited review procedures on **31-Mar-2015** and was approved.

Sincerely,

Clarissa Graham

REC Coordinator Research Ethics Committee: Human Research (Humanities)

Investigator Responsibilities

Protection of Human Research Participants

Some of the general responsibilities investigators have when conducting research involving human participants are listed below:

1. Conducting the Research. You are responsible for making sure that the research is conducted according to the REC approved research protocol. You are also responsible for the actions of all your co-investigators and research staff involved with this research. You must also ensure that the research is conducted within the standards of your field of research.
2. Participant Enrolment. You may not recruit or enrol participants prior to the REC approval date or after the expiration date of REC approval. All recruitment materials for any form of media must be approved by the REC prior to their use. If you need to recruit more participants than was noted in your REC approval letter, you must submit an amendment requesting an increase in the number of participants.
3. Informed Consent. You are responsible for obtaining and documenting effective informed consent using **only** the REC-approved consent documents, and for ensuring that no human participants are involved in research prior to obtaining their informed consent. Please give all participants copies of the signed informed consent documents. Keep the originals in your secured research files for at least five (5) years.
4. Continuing Review. The REC must review and approve all REC-approved research proposals at intervals appropriate to the degree of risk but not less than once per year. There is **no grace period**. Prior to the date on which the REC approval of the research expires, **it is your responsibility to submit the continuing review report in a timely fashion to ensure a lapse in REC approval does not occur**. If REC approval of your research lapses, you must stop new participant enrollment, and contact the REC office immediately.
5. Amendments and Changes. If you wish to amend or change any aspect of your research (such as research design, interventions or procedures, number of participants, participant population, informed consent document, instruments, surveys or recruiting material), you must submit the amendment to the REC for review using the current

Amendment Form. You **may not initiate** any amendments or changes to your research without first obtaining written REC review and approval. The **only exception** is when it is necessary to eliminate apparent immediate hazards to participants and the REC should be immediately informed of this necessity.

6. Adverse or Unanticipated Events. Any serious adverse events, participant complaints, and all unanticipated problems that involve risks to participants or others, as well as any research related injuries, occurring at this institution or at other performance sites must be reported to Maléne Fouché within **five (5) days** of discovery of the incident. You must also report any instances of serious or continuing problems, or non-compliance with the RECs requirements for protecting human research participants. The only exception to this policy is that the death of a research participant must be reported in accordance with the Stellenbosch University Research Ethics Committee Standard Operating Procedures. All reportable events should be submitted to the REC using the Serious Adverse Event Report Form.

7. Research Record Keeping. You must keep the following research related records, at a minimum, in a secure location for a minimum of five years: the REC approved research proposal and all amendments; all informed consent documents; recruiting materials; continuing review reports; adverse or unanticipated events; and all correspondence from the REC

8. Provision of Counselling or emergency support. When a dedicated counsellor or psychologist provides support to a participant without prior REC review and approval, to the extent permitted by law, such activities will not be recognised as research nor the data used in support of research. Such cases should be indicated in the progress report or final report.

9. Final reports. When you have completed (no further participant enrolment, interactions, interventions or data analysis) or stopped work on your research, you must submit a Final Report to the REC.

10. On-Site Evaluations, Inspections, or Audits. If you are notified that your research will be reviewed or audited by the sponsor or any other external agency or any internal group, you must inform the REC immediately of the impending audit/evaluation.

APPENDIX 4: RESEARCH ETHICS COMMITTEE APPROVAL – MIDRAND GRADUATE INSTITUTE



28 April 2015

**To Whom It May Concern:
MIDRAND GRADUATE
INSTITUTE STELLENBOSCH
UNIVERSITY**

44 Alsatian Road
Glen Austin Extension 3
Midrand

P.O. Box 2986, Halfway House Midrand,
1685, South Africa

T: +27 (0)11 690 1770/1733
F: +27 (0)11 690 1895

RESEARCH TOPIC: FACTORS INFLUENCING ADOPTION OF HIGH RISK SEXUAL BEHAVIOUR BY UNDERGRADUATE STUDENTS AT A PRIVATE TERTIARY INSTITUTION IN GAUTENG PROVINCE, SOUTH AFRICA IN THE CONTEXT OF THE HIV/AIDS EPIDEMIC

This is to confirm that the Research Ethics Committee of the Midrand Graduate Institute (MGI), acting on behalf of the Research Committee and Management of MGI, has conditionally granted Mrs Pondiso Ziki approval to undertake a research project towards her **Master of Philosophy in HIV/AIDS Management** degree at Stellenbosch University (Student Number: 180 813 12).

The condition attached to ethical approval is that the applicant removes MGI's name from her study and replace it with 'a private higher education institution' or similarly appropriate wording.

It is understood that appropriate protocols, with particular reference to consent by, and confidentiality for all participants, will be observed. It is further understood that the results of the research will be made available to the Research Committee and to MGIEXCO.

The Research Committee and Management of MGI wish Mrs Ziki success in her studies.

Sincerely, and on behalf of the MGI Research Ethics Committee,

A handwritten signature in black ink, appearing to read 'L. Mlilo', written over a horizontal line.

Dr Luke Mlilo

Dean: Research & Eduvate

E: lukem@mg.ac.za

T: +27 (0)11 690-1717

A handwritten signature in black ink, appearing to read 'J. Freysen', written over a horizontal line.

Dr Johan Freysen

Vice-Principal (Academic)

APPENDIX 5: CONSENT FORM – RESEARCH QUESTIONNAIRE



UNIVERSITEIT • STELLENBOSCH • UNIVERSITY
Jou kennisvennoot • your knowledge partner

STELLENBOSCH UNIVERSITY

CONSENT TO PARTICIPATE IN RESEARCH (Questionnaire participants)

Title of the research project: Factors influencing adoption of high risk sexual behaviour by undergraduate students at a private higher education institution, in the context of the HIV/AIDS epidemic

You are invited to participate in a research study to be conducted by Pondiso Ziki, a Master of philosophy student in HIV/AIDS Management, from Africa Centre for HIV/AIDS Management at Stellenbosch University. The results will be contributed to the Master of Philosophy degree thesis. You were selected as a possible participant in this study because you belong to the student community on campus and your contribution will be valuable in achieving the aim of this study and I value your open and honest contribution.

PURPOSE OF THE STUDY

The aim of the study is to establish why undergraduate students at a private higher education institution engage in high risk sexual behaviour that put them at risk for contracting HIV, Sexually Transmitted Infections (STIs) and unplanned pregnancies. The findings will in turn inform the design and implementation of an HIV intervention programme on the campus.

The study has got the following four objectives:

- To gather information about students' sexual knowledge, attitudes and practices.
- To identify students' understanding of what constitutes high risk sexual behaviour.
- To establish what knowledge informs their sexual choices.
- To provide guidelines for and recommendations for a future HIV programme at the institution.

1. PROCEDURES

If you volunteer to participate in this study, we would ask you to do the following things:

- Take time to read the information in this document and consent form attached which explains the purpose of the research study
- Feel free to contact the researcher regarding any questions that you might have about this study.
- To ensure that you understand what the research entails and what will be your role, should you agree to participate.
- Sign the consent form if you agree to participate in the survey
- Complete the research questionnaire (30-45 minutes of your time) which will be collected immediately after completion

2. POTENTIAL RISKS AND DISCOMFORTS

A level of discomfort may be experienced by participants due to the sensitive nature of questions. To support participants in dealing with any issues that might be triggered when completing the questionnaire, see below contact details for Lifeline organisation for counselling support services. The services that are offered by Lifeline for free include emotional wellness, HIV/AIDS wellness, Gender wellness and Family wellness.

Lifeline Johannesburg

0861 322 322 (Toll free number)

Email: lifeline@lifelinejhb.org.za

Website: <http://www.lifelinejhb.org.za>

3. POTENTIAL BENEFITS TO SUBJECTS AND/OR TO SOCIETY

Various stakeholders within the university community including students may benefit from the study as the findings will inform the development and implementation of an HIV intervention programme on campus.

4. PAYMENT FOR PARTICIPATION

Please note that there is no compensation or remuneration for participating in this research, and there will be no costs incurred by you, should you agree to participate in the study.

5. CONFIDENTIALITY

Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission or as required by law. Confidentiality will be maintained by means of not allocating unique or personal identifiers to participants during the study. Data collected from the research will be kept safe in my home after being captured on my personal computer which is password locked. Since the institution has a vested interest in the project, only research project results and not filed data from participants will be disseminated so that participants are protected.

Only research project results and not data from participants will be disseminated so that participants are protected.

6. PARTICIPATION AND WITHDRAWAL

You can choose whether to be in this study or not. If you volunteer to be in this study, you may withdraw at any time without consequences of any kind. You may also refuse to answer any questions you don't want to answer and still remain in the study. The investigator may withdraw you from this research if circumstances arise which warrant doing so.

7. IDENTIFICATION OF INVESTIGATORS

If you have any questions or concerns about the research, please feel free to contact the following people involved in the research project:

Principal investigator: Pondiso Ziki

Contact details: 074 233 5937

pindyzi@gmail.com

Supervisor: Professor Johan Augustyn

Contact details: 218083018

jeda@sun.ac.za

8. RIGHTS OF RESEARCH SUBJECTS

You may withdraw your consent at any time and discontinue participation without penalty. You are not waiving any legal claims, rights or remedies because of your participation in this research study. If you have questions regarding your rights as a research subject, contact Ms Maléne Fouché [mfouche@sun.ac.za; 021 808 4622] at the Division for Research Development.

SIGNATURE OF RESEARCH SUBJECT OR LEGAL REPRESENTATIVE
--

The information above was described to me_____ (participant) by _____ (Principal investigator) in English and I have a good command of the English language. I was given the opportunity to ask questions and these questions were answered to my satisfaction.

I hereby consent voluntarily to participate in this study and I have been given a copy of this form.

Name of Participant

Signature of Participant

Date

SIGNATURE OF INVESTIGATOR

I declare that I explained the information given in this document to _____
(name of the investigator). The participant was encouraged and given ample time to ask me
any questions. This conversation was conducted in English and no translator was used.

Signature of Investigator

Date

APPENDIX 6: CONSENT FORM – FOCUS GROUP DISCUSSION



UNIVERSITEIT • STELLENBOSCH • UNIVERSITY
Jou kennisvennoot • your knowledge partner

STELLENBOSCH UNIVERSITY

CONSENT TO PARTICIPATE IN RESEARCH (Focus Group participants)

Title of the research project: Factors influencing adoption of high risk sexual behaviour by undergraduate students at a private higher education institution, in the context of the HIV/AIDS epidemic

You are invited to participate in a research study to be conducted by Pondiso Ziki, a Master of philosophy student in HIV/AIDS Management, from Africa Centre for HIV/AIDS Management at Stellenbosch University. The results will be contributed to the Master of Philosophy degree thesis. You were selected as a possible participant in this study because you belong to the student community on campus and your contribution will be valuable in achieving the aim of this study and I value your open and honest contribution.

PURPOSE OF THE STUDY

The aim of the study is to establish why undergraduate students on campus engage in high risk sexual behaviour that put them at risk for contracting HIV, Sexually Transmitted Infections (STIs) and unplanned pregnancies. The findings will in turn inform the design and implementation of an HIV intervention programme on the campus.

The study has got the following four objectives:

- To gather information about students' sexual knowledge, attitudes and practices.
- To identify students' understanding of what constitutes high risk sexual behaviour.
- To establish what knowledge informs their sexual choices.
- To provide guidelines for and recommendations for a future HIV programme at the institution.

9. PROCEDURES

If you volunteer to participate in this study, we would ask you to do the following things:

- Take time to read the information in this document and consent form attached which explains the purpose of the research study
- Feel free to contact the researcher regarding any questions that you might have about this study.
- To ensure that you understand what the research entails and what will be your role, should you agree to participate.
- Sign the consent form if you agree to participate in the survey
- To participate in the focus group discussion consisting of between 6-12 participants and the session will be conducted for approximately 2 hours along.

10. POTENTIAL RISKS AND DISCOMFORTS

A level of discomfort may be experienced by participants due to the sensitive nature of questions. To support participants in dealing with any issues that might be triggered during the focus group, see below contact details for Lifeline organisation for counselling support services. The services that are offered by Lifeline for free include emotional wellness, HIV/AIDS wellness, Gender wellness and Family wellness.

Lifeline Johannesburg

0861 322 322 (Toll free number)

Email: lifeline@lifelinejhb.org.za

Website: <http://www.lifelinejhb.org.za>

11. POTENTIAL BENEFITS TO SUBJECTS AND/OR TO SOCIETY

Various stakeholders within the university community including students may benefit from the study as the findings will inform the development and implementation of an HIV intervention programme on campus.

12. PAYMENT FOR PARTICIPATION

Please note that there is no compensation or remuneration for participating in this research, and there will be no costs incurred by you, should you agree to participate in the study.

13. CONFIDENTIALITY

Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission or as required by law. Confidentiality will be maintained by means of not allocating unique or personal identifiers to participants during the study. Data collected from the research will be kept safe in my home after being captured on my personal computer which is password locked. Since the institution has a vested interest in the project, only research project results and not filed data from participants will be disseminated so that participants are protected.

The audio tapes recorded during the focus group discussion will be destroyed soon after the transcription process is completed.

Only research project results and not data from participants will be disseminated so that participants are protected.

14. PARTICIPATION AND WITHDRAWAL

You can choose whether to be in this study or not. If you volunteer to be in this study, you may withdraw at any time without consequences of any kind. You may also refuse to answer any questions you don't want to answer and still remain in the study. The investigator may withdraw you from this research if circumstances arise which warrant doing so.

15. IDENTIFICATION OF INVESTIGATORS

If you have any questions or concerns about the research, please feel free to contact the following people involved in the research project:

Principal investigator: Pondiso Ziki

Contact details: 074 233 5937

pindyzi@gmail.com

Supervisor: Professor Johan Augustyn

Contact details: 218083018

jeda@sun.ac.za

16. RIGHTS OF RESEARCH SUBJECTS

You may withdraw your consent at any time and discontinue participation without penalty. You are not waiving any legal claims, rights or remedies because of your participation in this research study. If you have questions regarding your rights as a research subject, contact Ms Maléne Fouché [mfouche@sun.ac.za; 021 808 4622] at the Division for Research Development.

SIGNATURE OF RESEARCH SUBJECT OR LEGAL REPRESENTATIVE
--

The information above was described to me_____ (participant) by _____ (Principal investigator) in English and I have a good command of the English language. I was given the opportunity to ask questions and these questions were answered to my satisfaction.

I hereby consent voluntarily to participate in this study and I have been given a copy of this form.

Name of Participant

Signature of Participant

Date

SIGNATURE OF INVESTIGATOR

I declare that I explained the information given in this document to _____
(name of the investigator). The participant was encouraged and given ample time to ask me
any questions. This conversation was conducted in English and no translator was used.

Signature of Investigator

Date